

Cornell University Library

THE GIFT OF

Senator Gallinger

A. 185902

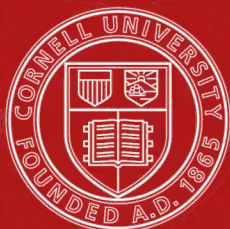
6 / III / 05

Cornell University Library
HE745 .A2 1905
v.3
Report of the Merchant Marine Commission



3 1924 032 482 600

olin



Cornell University Library

The original of this book is in
the Cornell University Library.

There are no known copyright restrictions in
the United States on the use of the text.

REPORT

OF

THE MERCHANT MARINE COMMISSION,

Together with the Testimony Taken at
the Hearings.



IN THREE VOLUMES.

Volume III.

HEARINGS ON THE SOUTHERN COAST AND AT
WASHINGTON, D. C.,
AND GENERAL INDEX.



WASHINGTON:
GOVERNMENT PRINTING OFFICE.

1905.



6611255

~~III~~

A. 185902

MERCHANT MARINE COMMISSION.

SENATORS.

Hon. JACOB H. GALLINGER, New Hampshire, *Chairman*.
Hon. HENRY CABOT LODGE, Massachusetts.
Hon. BOIES PENROSE, Pennsylvania.
Hon. THOMAS S. MARTIN, Virginia.
Hon. STEPHEN R. MALLORY, Florida.

REPRESENTATIVES.

Hon. CHARLES H. GROSVENOR, Ohio.
Hon. EDWARD S. MINOR, Wisconsin.
Hon. WILLIAM E. HUMPHREY, Washington.
Hon. THOMAS SPIGHT, Mississippi.
Hon. ALLAN L. McDERMOTT, New Jersey.

Mr. WINTHROP L. MARVIN, *Secretary to the Commission*.

H2

HEARINGS BEFORE THE MERCHANT-MARINE COMMISSION.

HEARINGS AT GALVESTON.

ROOMS OF THE MARITIME ASSOCIATION,
Galveston, Tex., Saturday, November 12, 1904.

The subcommission met at 1.15 o'clock p. m.

Present: Senator Mallory.

ADDRESS OF BERTRAND ADOUE,

President of the Galveston Maritime Association.

MR. ADOUE. Gentlemen, you have seen the call for this meeting published in the papers. I will say to the gentlemen of the Merchant Marine Commission that the association is indeed very proud to have the opportunity to entertain those who visit this port upon a very important mission. We all know, or ought to know, the position occupied now by the merchant marine of the United States, which is, indeed, a very humble one, if we compare it to the other resources of the country. The United States for the last thirty years has made great strides in everything else, but has gone backward in the maritime business.

The gentlemen present are here for the purpose of ascertaining, I suppose, what we know, or perhaps what we do not know, about the merchant marine. I am afraid, however, without wishing to anticipate what the views of those present may be, that the members of the Commission are perhaps going to be disappointed, inasmuch as the shipping business here is not controlled by Americans. It is controlled both by English subjects and English ships. Consequently the inferiority of the American merchant marine has not been brought to our attention as it should have been. Statistics go to show that something can be done, but with respect to how to do it, men differ.

Great minds interested in the shipping industry have expressed views. One desires one thing, another desires another. They are far apart, so far. I really do not know what we can do. But I suppose the gentlemen present will tell us what they expect of us.

RESPONSE OF SENATOR MALLORY.

SENATOR MALLORY. Gentlemen, on behalf of the Merchant Marine Commission, I wish to extend thanks to your association for its kindness in designating its quarters as a place for our meeting, and also for the interest you are manifesting in the matter we are investigating. I am the only member of the Commission present. Senator Martin, of Virginia, together with two members of the House, and myself, were designated as a subcommission of the Commission, to visit the Gulf

ports in order to ascertain the views of anyone who wished to be heard on the subject of the condition of the American merchant marine and the proper steps to be taken to revive it, and interest in it, if possible.

The Congress at its last session passed an act, the second section and a part of the third section of which I will read, which disclose the power of the Commission.

"That it shall be the duty of this Commission to investigate and to report to the Congress on the first day of its next session what legislation, if any, is desirable for the development of the American merchant marine and American commerce, and also what change or changes, if any, should be made in existing laws relating to the treatment, comfort, and safety of seamen, in order to make more attractive the seafaring calling in the American merchant service.

"That the Commission shall give reasonable time for hearings, if deemed necessary, and if necessary it may appoint a subcommission or subcommissions of its own members to make investigation in any part of the United States."

A FAR REACHING INQUIRY.

Under that authority the Commission has visited the principal ports on the North Atlantic coast, the ports on the Lakes, and several of the most important ports on the Pacific coast, and has taken a great deal of testimony embodying the views, varied as they are, of quite a number of men who are capable of entertaining opinions. Many of those views are worthy of consideration. The testimony has been taken, and will be published in book form, and the Commission will make its report to Congress at the beginning of the approaching session.

Senator Martin and I decided to designate Galveston as one of the ports to be visited, and we will go to New Orleans and possibly to one other Gulf port, and then to a South Atlantic port, and finally to Newport News.

The object, of course, is to get information as to what the men engaged in the commerce of this country think is best to be done in order to rehabilitate the merchant marine. We do not express our own views, although we probably all have views on the subject; I know I have; but we should like to have the opinion of any man who has reached a conclusion after having given the subject any thought, and out of the mass of opinions we may possibly be able to devise something, on which we can agree, to suggest to Congress as a proper thing to be done.

With that statement, which I believe covers the ground, as our time is quite limited, we will now proceed to hear those who have anything to say. I understand from the list I have here that Mr. Gresham is one of the gentlemen who is to give us his views on the subject covered by this inquiry, and we shall be pleased to hear from him.

STATEMENT OF HON. WALTER GRESHAM.

MR. GRESHAM. Gentlemen of the Commission, I dislike to approach a subject to which I have given as little thought as I have to this, but perhaps it will not hurt me to state what appears to me to be the most practicable way of getting relief for our merchant marine. We

all know that the policies of the great parties of this country have differed very greatly upon the measures necessary to rehabilitate the merchant marine.

Some people have thought that the revision of the registry laws, so as to permit the American merchant to go into the markets of the world and buy his vessels where he can buy them cheapest and then put them under the American flag, might grant us the relief. To that there has been a great deal of objection, for we all know that such a course would have a tendency to pull down the American coastwise steamers, which constitute to-day perhaps a fleet of the finest vessels of their number in the world. That may perhaps be considered out of the way, or at least that it is impossible to obtain anything on that line.

The next question is that of a subsidy. That seems to be the policy adopted by most of the commercial nations of the world, but it has not met with much favor among the American people; and I believe there will be no active effort made on the part of anyone to urge a ship subsidy upon the line of what is known as the Hanna-Frye bill.

FREE MATERIALS.

Then, if neither of those methods can be pursued, what can we do? It has been suggested that the removal of the tariff upon such articles as enter into the construction of American vessels would to a large extent relieve the American marine of the excess of cost which now prevails in this country over vessels built in foreign countries. To what extent such a measure would afford relief, I am not able to state. Your Commission doubtless knows that better than I do, for I have not examined the tariff laws in reference to the various articles that go into the construction of American ships.

Senator MALLORY. We now have a provision of law which permits a drawback of the duties paid on materials used in the construction of ships built in America and put under the American flag.

Mr. GRESHAM. Does it cover all material required and used in ship-building?

Senator MALLORY. I think so. Of course it does not apply to the coastwise trade.

Mr. GRESHAM. No; it applies only to foreign-going vessels.

Senator MALLORY. Yes.

Mr. GRESHAM. It does not apply to coastwise vessels.

Senator MALLORY. It applies to vessels engaged in the foreign trade.

Mr. GRESHAM. But not to coastwise steamers?

Senator MALLORY. No. On everything that goes into the construction of such ships, built and run under the American flag, there is a rebate or drawback of the tariff paid on the importation of the articles.

I will state that we have had some testimony on that subject, and among shipbuilders there seems to be an opinion that that provision of law has added very little, if anything at all, to the economy of building ships in this country.

Mr. GRESHAM. Would that be true now? Since that law applies only to registered steamers and not to coastwise steamers, does not that condition arise from the fact that we are building practically no vessels for the foreign trade?

NO IMPORTANT HELP.

Senator MALLORY. No. Mr. Nixon testified that he tried it, and while he thought he had given it a fair trial, and it made a very little difference in the cost of the ship, he did not think the matter was very material.

Mr. GRESHAM. Not enough to justify their building ships for the foreign trade in this country?

Senator MALLORY. No.

Mr. GRESHAM. The claim we hear through the press is that there are manufactured in this country many articles, particularly in the steel line used in the construction of vessels, which are sold to go into foreign-built vessels at a much lower price than that at which we can secure them in this country. Is there anything in that claim?

Senator MALLORY. I am inclined to think there is a great deal of truth in it.

Mr. GRESHAM. But you have not been able to get at it specifically?

Senator MALLORY. No, sir.

Mr. GRESHAM. I do not know anything specific on that line.

Senator MALLORY. I merely interrupted you to call your attention to the fact that we now have such a statute.

Mr. GRESHAM. I am glad you did, because I am talking on a subject on which I am not prepared, as you are.

Senator MALLORY. I want to draw out information as much as possible. I call your attention to the fact that we have on the statute books to-day a law which permits a rebate of the duty paid upon imported materials used in the construction of American vessels. But practically it does not amount to anything in reviving the building in this country of ships for the foreign service.

A DIFFERENTIAL DUTY.

Mr. GRESHAM. Next I will ask whether you have discussed or considered the feasibility of giving a differential or rebate in favor of goods covered by our tariff brought to this country in American vessels?

Senator MALLORY. That plan has been discussed to some extent before the Commission, and there is a diversity of opinion about it, of course, and it is one of the things upon which I should like very much to hear your views.

Mr. GRESHAM. It seems to me that that perhaps would be the most feasible plan of getting at it, but I understand the trouble about it is that in a great many instances our commercial treaties with the maritime nations of the world prohibit our doing anything of that sort. I think we have some twenty or thirty treaties to that effect.

Senator MALLORY. Some thirty odd.

Mr. GRESHAM. As I understand it, the very nations with which we have such treaties get around them by giving a subsidy direct to the ship, and most of the countries that are doing business with us do subsidize their ships. That brings us right up against the proposition to which the American people are very much averse.

AN INDIRECT SUBSIDY.

What would be the difficulty in this suggestion? Let American vessels importing goods into this country have a subsidy equal to a certain percentage of the tariff received by the Government upon the goods carried in their respective bottoms. That would be, indirectly, certainly, a subsidy; but would it in any way conflict with the provisions of the treaties? I am not familiar enough with them to state whether or not it would. If we can not do it directly, why can we not do it indirectly in that way? It may be said that the Government might as well put its hands into its pocket and give a subsidy direct; but I think there is a difference between the two propositions. In that case the ship would only get such a subsidy as it earned upon the goods that it brought into this country and from no other source. I believe you now give a mail subsidy to some extent?

Senator MALLORY. Yes; we have a number of mail routes that are subsidized.

Mr. GRESHAM. That brings us back again to the subsidy question. It would be an incentive.

FOR SERVICE RENDERED.

Senator MALLORY. The mail subsidy is based on a different principle from that on which a ship subsidy is based. The mail subsidy is a quid pro quo direct, just as we give a subsidy for the expedition of the mails on railroads, for extra services, for extra speed. And on all of our mail routes where we give such a subsidy it is given because of some extra service which is rendered by the carrier, whereas the objection to the direct ship subsidy is that there is no public service rendered at all; that it is simply giving a man a subsidy for running his own business. That is one of the arguments used against the ship subsidy more forcibly, probably, than any other. However, I do not wish to interrupt you.

AID THE FREIGHTERS.

Mr. GRESHAM. I wish you would do so, because you can see that I am not thoroughly posted on this subject. If I had studied the subject I would perhaps have been able to form a more definite opinion.

Right in this connection, the trouble I have always had with the subsidy bills which have been presented is this: The commerce of this country can be carried more economically in freighters, while the subsidy measure that you have been discussing at Washington looks to a subsidy for fast ships plying between great ports on the Atlantic seaboard and European marts. We think if you are to have a subsidy the people and the commerce of the country would derive a great deal more benefit by letting it apply to heavy freighters than to swift greyhounds that ply between this country and Europe. Such aid would help to develop our trade with the countries south of us, and if we are to have a subsidy of any kind it seems to me a subsidy upon that line would be better than one upon the lines of the bills you have had under discussion heretofore in Washington.

Now, there is a question as to how to base the amount of that subsidy; whether upon the ship's tonnage and its speed, or whether upon the imports that it may bring into this country. I am not sufficiently advised to be able to say which would tend the more to build up the commerce of the country. But it does seem to me that if relief is to be had, it should be in the direction of building up freighters rather than the other class of vessels which ply between the great ports of the world, and in which traffic there are now some of the finest vessels afloat. Vessels of that kind would do us on the Gulf very little good; but if we had a cheaper class of vessels plying between this country and foreign ports, say in South America and Central America, and Asia and Africa, we might be able to build up a pretty good trade.

In this connection there is another matter. Those vessels, I think, should also be enabled to engage to some extent in the coasting trade. Take a vessel running to-day from here to Tampico and Veracruz, or to Cuban ports. We should like to have those vessels permitted, if we could, to engage to some extent in the coastwise trade between the various ports at which they would touch in the course of their voyage.

Mr. ADOUE. Do you mean foreign vessels?

AID THE SMALLER VESSELS.

Mr. GRESHAM. I mean American vessels. Foreign vessels can not now engage in that trade. As it now stands nearly all of our commerce, except coastwise, is carried in foreign vessels. They have two advantages. One is the difference of probably 30 to 40 per cent in the cost of construction in favor of the foreign vessel of the same class exactly, and the other is in being able to operate vessels cheaper under a foreign flag than under the American flag. Those are the difficulties you are trying to get around, as I understand.

Now how it can be done, Mr. Chairman, is a very difficult question; but, as I said, I believe any relief which you may give in this particular should be in the direction of the smaller and slower class of vessels, because with those only can the trade with the countries south of us be built up. You can not use the big vessels to advantage in that trade, as it seems to me.

I am sorry I am not able to go into more detail on these subjects, but I have not thought of them except generally. When we were on the Interstate and Foreign Commerce Committee of the House I thought more of the question, and I have not thought much of it since I was left at home and you, Senator, were promoted.

REMARKS OF BERTRAND ADOUE.

Mr. ADOUE. Mr. Chairman, I understand that the time of the Commission is limited, as you propose to go away this afternoon.

Senator MALLORY. Yes, sir.

Mr. ADOUE. Consequently we have but a few hours in which to express our views. There may be those present who know how to make a speech, but that is not what the Commission is after. It wants information. A few names have been supplied of those willing to speak, but I would not like to ask gentlemen to come forward and tell us what they do not know. I would prefer to say this: If there are here one or more gentleman who have given the subject some thought, some

study, and who can tell us how the American marine can be improved and restored to its pristine strength, let them come forward. We all understand very well that forty or fifty years ago the American marine ranked amongst the finest in the world. To-day that business is being conducted by other people.

ALL WANT AMERICAN SHIPS.

I understand that the object of the Commission is to find out how the American Government can do for its merchant marine what it has done for its Navy. We are not afraid to say that we are going to be soon at the head of the nations in power on the seas. Now we want the business of the seas. Is there any gentleman present who will be kind enough to express his own views on the subject? Of course, it is the view generally of everybody who lives in this country that the United States merchant marine should be restored to its proud station. I do not suppose one man could be found who would be against that general proposition. Even among our own friends here, the Britishers, who rule this port, I suppose there is not one who would say a word against improving the American merchant marine. At the same time, I do not suppose they would go very much out of their way—they have not as yet bothered themselves very much in that direction—for the purpose of finding out how the American merchant marine may be improved.

For these reasons I should like gentlemen to volunteer.

Senator MALLORY. I take it that some of the gentlemen whose names have been furnished are prepared to give us their views, and I think it would be very well to call them in the order in which their names appear. I suggest that we hear from Mr. Mosle.

STATEMENT OF H. MOSLE.

Mr. MOSLE. Mr. Chairman, it is very hard, indeed, to get up and try to say a few words after we have been warned and cautioned only to speak of that of which we know.

Senator MALLORY. What is your occupation?

Mr. MOSLE. I am in the shipping business. As far as I know there is only one vessel from Galveston under the American flag that is going offshore, and that is the *John Francis*.

FREE SHIPS AND FREE CREWS.

I, contrary to Colonel Gresham, have a distinct view on this subject. I have followed this matter for a couple of years. I followed Senator Frye's bill, and I have read it carefully. I am at it as a means of earning a living and not as a pastime, and I am fully convinced that any subsidy will be a failure, and absolutely convinced that we will not have any merchant marine unless we have free trade, free ships, and, what is more than free ships—free crews. I should like to see that condition.

Senator MALLORY. What do you mean by "free crews?"

Mr. MOSLE. By "free crews" I mean the privilege of employing the best men we can get hold of, regardless of nationality.

Senator MALLORY. You can do that now.

Mr. MOSLE. You can not, sir. The American law prohibits you from employing anybody but an American citizen.

Senator MALLORY. Oh, no. That applies to officers; not to seamen.

Mr. MOSLE. When I speak of the management of the Government, I speak of the officers, because they are the sum total of everything.

My experience originated in this way: We started to do some shipping from Galveston. We did not have money enough to buy a steamer, so we bought a schooner. Then we bought another one, and our intention was to build up an American merchant marine. It was very hard to get the money to start at first. The money was subscribed mostly by people who were not native born, but as soon as we showed that there was some chance of success we met with quite a lot of encouragement on the part of our American citizens here, but mostly from coast towns. When we went farther inland we could not draw any money. Our idea was to build up the American merchant marine. We did that for two years, and we have quit the American flag and are running under the Norwegian flag.

USING NORWEGIAN CRAFT.

Since we made that change we have put about ten times as much money under the Norwegian flag as we started to put under the American flag. The reason is this: The intention was all right, but we found it did not pay, and you can not get subscribers and shareholders on patriotism. You have to get them on a business proposition. I am satisfied that a vessel under the American flag can not compete in offshore trade. I am satisfied that a subsidy will not be sufficient to overcome the disadvantages of a cheaper foreign ship, and, what is much more important in the beginning—and the beginning is the hardest part—of a better crew under the other flag.

Senator MALLORY. Right here let me ask you a question. In what trade are your vessels engaged?

Mr. MOSLE. With Mexico, Cuba, and Costa Rica.

Senator MALLORY. Steam vessels?

Mr. MOSLE. Yes, sir.

Senator MALLORY. Is it a fact to your knowledge—it has been asserted that it is—that when a vessel is transferred to the Norwegian flag, it enables you to employ not merely your officers but your crew at a less rate of wages than under the American flag?

PREFERS FOREIGN SAILORS.

Mr. MOSLE. In a manner, no. But if there is an American steamer lying at a wharf, and there is also a Norwegian steamer or a British steamer lying at the wharf, and the one pays here in port, as I think the representative of the Mallory Line will agree, \$40 for firemen out of New York, and our steamer under the Norwegian flag, lying alongside of the Mallory Line steamer, pays \$30 for firemen, which is already \$12 higher than the original crew gets for season wages, I believe we will get a crew more quickly out of the available men who are loafing around the wharf than he will for the American ship,

because the supply of men to man ships consists of foreigners to a very large extent, and the difference in the wages, although this may seem a matter of surprise to you, but I have noticed it repeatedly, does not seem a sufficient inducement to get men on the American ships; and I take it crew for crew the foreign crew is better than the American crew, although getting lower wages in a competitive port.

Senator MALLORY. Do you know what the Mallory Line pay their officers?

Mr. MOSLE. I believe I do.

Senator MALLORY. What difference is there between the wages their officers receive and those paid your captains and chief engineers?

Mr. MOSLE. I imagine the captain earns approximately as much as the Mallory Line captain. The difference comes in on the lower officers—the second, third, and fourth officers—and particularly in the engine department. On a steamer in Galveston or in a southern port, I believe in the engine department the third and fourth officers are better men under the foreign flag than under the Mallory Line flag, because the men in the third and fourth grade of officers aboard a foreign ship are men who come out of families that make a profession of that business, and they have an ambition to succeed in that particular trade. However, the Mallory Line happens to be one of the better class, and I think it is not fair to use it and the Southern Pacific as standards in the subject we have now under discussion—that is, the offshore trade.

But in the same trade that we have here you will find ever so much better men among the lower officers under the foreign flag than you can possibly get under the American flag, no matter what you pay. I have seen small towboats lying here at the wharf waiting for second engineers and offering a hundred and twenty-five dollars a month, and the boat stayed there because the union in town would not permit their men to accept.

DISCRIMINATING AGAINST AMERICAN VESSELS.

Senator MALLORY. Do you know why there is this singular discrimination against the American vessel in point of wages? Can you account for it, or have you any theory on the subject?

Mr. MOSLE. Yes.

Senator MALLORY. What is it?

Mr. MOSLE. First of all, the American people make a better living ashore, and, second, there is no supply of men for that purpose.

Senator MALLORY. There are sailors. Do you mean there is no supply of men capable of being officers aboard American vessels?

Mr. MOSLE. I think there are plenty of men capable; I think there is no nation that can offer better men; but the men suited for that business find better employment ashore, and as a matter of fact there are no men available. We have had schooners on which we paid as high wages as the captain gets aboard a steamer, and yet I have never during four years seen a mate aboard that vessel on more than three voyages. Usually it is for one voyage; and we pay him very much better wages than the first officer gets aboard a steamer.

The subsidy has another disadvantage, and that, in my opinion, is a very grave one when you live in Florida or in Texas. In order to take advantage of the subsidy, especially under the plan which Sena-

tor Frye proposed—that is, to fast ships—a vast amount of capital is required to start anything at all. In order to get a large amount of capital together you have to seek a field like New York or Philadelphia. You have to seek a field where there is trade enough to employ that class of vessels, which would be only in New York, San Francisco, or possibly New Orleans. While it may be all right on paper, it is utterly impossible in actual trade to get that much capital together in a town like your ports in Florida (except for the Cuban trade, which is really New York trade and will be controlled by New York trade), or in a town like Galveston or Mobile or any other of those ports.

OPPOSED TO SUBSIDY.

A subsidy will centralize all trade. A subsidy will do what has been done in the Porto Rican trade since it became American. It will take every pound of that business away from Galveston or any of the other smaller ports and put it into New York or into the larger cities. When the Porto Rican business could still be handled under the foreign flag, we here, the small people, who were not in reach of Washington as easily as New York and Philadelphia are, did a very thriving business in that line. The minute they had protection of some sort, or a subsidy in another form, our business was killed absolutely, and was taken to the larger cities. Consequently, on that score, I, locally, am against subsidies.

When the Colon business was started here we anticipated that we would get a very large trade out of Colon, or some trade out of Colon. The booking at Colon has shown it must go to New York. I happen to know about this, because I have been actually seeking the trade. I find that it is very hard to draw trade away from large centers unless you can offer them the same equivalent transportation. It is impossible for us in smaller cities to get it on a large scale or make it equivalent; consequently anything that tends to subsidize will centralize trade in favor of the large cities of the East and draw trade away from us.

I do not think the subsidy should be considered on the coastwise trade, as the Colonel said a while ago, because that can be protected whether we have a subsidy or whether we have free trade.

Mr. GRESHAM. I do not want a subsidy on the coastwise business.

OPPOSED, TOO, TO DISCRIMINATING DUTY.

Mr. MOSLE. I do not think the drawback proposition is of any value. The trade is now being run by liners, anyway, owing to the superior facilities and service of the liners. Tramp steamers really are disappearing here and in other ports, so the drawback would not do any good.

My experience has shown that in running business at sea there are really only two factors which should be considered or are considered in obtaining freight and business and money, and they are regularity and good service, and the ability to take freight at the lowest possible cost.

The difference in the original cost of the ship, 33½ per cent, is not of near as much consequence, I should say, as the difference in the cost

of running the ship and the efficiency of the men you have aboard your ship to take care of it.

I find, in comparing our experiences with our floating property under the American flag and under the Norwegian flag, that half of our later success is the better running under the foreign flag than under the American flag, and although we have excellent officers, I believe the best officers that can be had for that particular trade, it is much easier to increase under the foreign flag right now (I am always speaking of the off-shore trade, because I have had absolutely no experience in the shore trade), with the advantages of better officers, better and cheaper ships, than under the American flag. I believe the only remedy in order to build up American shipping is to give what I would call free ships and free crews. We never would think of putting \$100,000 under the Norwegian flag if we could put it with the same result under the American flag.

WANTS SHIPS, OFFICERS, AND MEN ALL FOREIGN.

Senator MALLORY. Do you think free ships, without what you call free officers, would amount to anything? In other words, if I should make you a present of a ship, which would not cost you a cent, do you think you would be able to run her to advantage under the American flag?

Mr. MOSLE. Most positively I could not. If you were to make me a present of the largest ship of the Mallory Line, or the largest ship of the Morgan system, and tell me I could have her absolutely free, but must run her in the off-shore trade, I would immediately change the flag.

Senator MALLORY. You could not run it under the American flag?

Mr. MOSLE. No, sir. I would consider it an absolute loss, and I am too poor to run it for patriotism.

Senator MALLORY. One more question. Suppose Congress were to repeal the acts requiring the masters and officers of American vessels in the foreign trade to be American citizens, do you think that that, in connection with free ships, would be sufficient to enable us to compete with foreign bottoms?

Mr. MOSLE. In my opinion that is the only chance there is to compete.

Senator MALLORY. How about the wages of the seamen, the ordinary men before the mast, and the firemen?

Mr. MOSLE. They will be more or less alike, because they are more or less alike now. Take an American ship between Liverpool and New York and an English ship in the same trade, and so far as the seamen are concerned the wages are alike now.

Senator MALLORY. There is a difference in different parts of the country. The testimony on that subject as to Philadelphia and New York is different from what it is in this section.

Mr. MOSLE. I believe that local conditions always will have some effect, but as a general proposition it can not be otherwise than as I have stated it. The two ships have to draw from the same source of supply, and unless the foreign ship would pay wages equal to those paid on the American ship, in the port where it sought to obtain men, it would not get any men. Consequently, they do pay about the same.

It can only be affected by the hire of the men for a given period—for two years, as is customary in Europe; for three months, as is customary here.

Senator MALLORY. Then, to summarize, the only thing you can see we can do to revive American shipping in the foreign trade is to open the opportunity to Americans to buy ships where they can get them cheapest and to employ men where they can get them cheapest?

Mr. MOSLE. Exactly. I say American capital ought to have the right to be employed under its own flag. As a matter of fact very much larger sums than people generally imagine are now employed under the Norwegian flag. I do not think the Commission is aware of the fact that out of this town \$100,000 went under the Norwegian flag in the last twelve months. I think that \$100,000 could have been profitably employed under this flag if conditions were only changed.

Senator MALLORY. Is there anything else you wish to say?

Mr. MOSLE. No, sir.

STATEMENT OF CAPT. JENS MOLLER.

Mr. ADOUE. Mr. Moller, who is present, is prepared to give the Commission some information.

Senator MALLORY. We shall be glad to hear from Mr. Moller.

Jens Moller appeared before the subcommission.

Senator MALLORY. Mr. Moller, what is your occupation?

Mr. MOLLER. At present I am standing on the corner waiting for something to turn up. I was in the shipping business here for twenty-three years, prior to which I was a sailor both in American and foreign vessels; as a common sailor and as an officer. I have studied this question somewhat both in the nature of the shipping business, in which I was engaged, and also as a sailor.

I will make the broad assertion that if we—I have been an American citizen for thirty-three years—were allowed to import ships free, or if we were allowed to build them in this country of free material, and receive a subsidy from the Government sufficient to pay the difference between our crew wages and those of foreign crews, we could not successfully run the vessel.

UNDER DIFFERENT CONDITIONS.

That is a broad assertion. The reason for it is found in the conditions which apply alike to our mechanics and laborers, if you please; or you may go further down the scale, and in the washing line our people can not compete with the Chinaman. We live under different economic conditions. We want more for the use of our money. We are not so economical in any sense of the word as are the people of most of the foreign nations whose citizens are engaged in the shipping business. And for these and many other reasons we could not compete at present. I will give you a small illustration: In Norway, Sweden, and Denmark, shipowners receive no subsidy whatsoever from the Government, except a small pittance that the Danish Government pays for the mail steamers between St. Thomas and Copenhagen, and I do not suppose it amounts to \$100,000 a year. Otherwise those three Governments do not subsidize any of their vessels, freight, or

mail, and yet they are able to compete successfully with the whole world, Norway having the largest fleet in the foreign business in the whole world.

THE FRENCH SUBSIDIES.

The Italian Government have of late subsidized certain of their vessels for immigration purposes and mail. France has largely subsidized her sailing vessels, and has made a perfect failure in so doing. My former agent in Havre told me six years ago that he had four large sailing vessels, of 3,400 tons each, and he sent one to Cardiff to load with coal for Australia. It was then to go from Australia to San Francisco and load wheat. She got in too late, and missed her charter. He sent her to Chile for saltpeter to go to Europe. She got there too late, and missed her charter, and came home in ballast—from San Francisco, around the Horn, and back to France in ballast, having had only a small freight of coal to Australia—and yet the subsidy was sufficient to pay 5 per cent interest on the vessel's capital for the whole voyage.

I said to this friend of mine, "How do you, as a taxpayer, like that?" He said, "Damn the taxpayer; I am in the shipping business." That is an illustration of how the subsidy works, and I am afraid a subsidy in this country, when we first got into it, would work like the pension and the tariff and other laws. The shipowners would go before Congress and say, "On the plea of your subsidy law we have built new ships to the extent of \$20,000,000, and we will prove to you that they are not paying expenses, and you must help us a little more." They would be helped a little more, no doubt, under the present régime. I am not criticising parties or anything of that kind, but am just stating the facts as they are.

That being so—and I challenge successful contradiction of it—is it well to advocate an act of that kind? If we do not know, to begin with, within hundreds of millions of dollars perhaps, what a subsidy in the course of ten years would cost us, we would simply go it blind. There is no scientific man living in the shipping business or otherwise who can tell you what the subsidy would amount to in ten years, unless you limit the amount of tonnage to be built, and if you limit it you acknowledge beforehand that your experiment is a poor one, for if it is practicable to make a success of it you would not want to limit the number of vessels; the more the better.

WITH FEWER MEN.

The American ship sails with less crew than a foreign vessel of the same tonnage. There is no question of that. In America, in the factory and in the field, men get more wages; but the employer gets more work out of the men who get the increased wages. I came here on a Boston vessel, and there were only eight people on it all told. She would have had no less than ten under the foreign flag, and under most foreign flags would have had twelve. Notwithstanding that, of course their wages would not amount to any more than ours; they would be the same; but the food bill would be greater for twelve men than for our eight.

But, as I stated before, even if the wages were equalized, and the cost of the respective ships were identical, we could not run them. In the

first place, our consular and navigation laws are very bad. They could be changed. In a great many foreign countries they have no consular fees; the ship pays nothing to the consul, and in other respects they minimize the expense for ships in order to encourage that kind of business as much as possible. That could be remedied easily in our commerce. But what you can not overcome for a long time is the economy of the foreign owner and the officers and the men connected with the service.

For instance, a Norwegian ship will come here. The captain, when we had less water over the bar than we have now, would come ashore, and instead of going to a hotel he would go on board another Norwegian vessel and get his food and lodging for nothing. What American shipmaster would do that? That would be considered menial. That illustrates how the foreigner economizes and cuts around corners in every respect. We are not, I may say, under the necessity of coming down to that system, and in that respect we are also unfit to compete with them.

THE FREE TRADE AGREEMENT.

If you were living in Iceland, where it is possible during the month of July to raise a little barley, would you inaugurate a protective law to the effect that all barley consumed in Iceland should be raised in Iceland, even if it cost \$5 a bushel, in order to exclude foreign barley? Would you not rather raise sheep and kill seals, which is in their line of business, and exchange those commodities with the men who produce barley in more favorable localities? Would you not get more economical results, both to the individual and to the nation by so doing? If the Italian, as has been proved, and the Norwegian, and the Swede, and the German, and the English can and do run their ships at such a freight rate that we can not compete, except by paying an enormous sum in the shape of a subsidy, had we not better let them do that kind of business for which they are better fitted while we attend to that which suits our country best. It seems to me that is the way I would progress in my business, and what is good for an individual, as a rule, with certain exceptions, is good for a nation.

Now, it may be said that we must have ships in order to protect our colonial possessions. There we get into the endless chain. Where did we get those colonial possessions? Did we get the islands because we had a Navy, or must we increase our Navy because we have the possessions? But we have the possessions, it is said, and therefore we must now change our policy. Do we expect to be at war all the time? If so, I think it will be granted that we could not hold the Philippines against the Japanese. I think every American will concede that, considering the respective bases of supplies, we could not hold the Philippines against the Japanese, in view of what they have proven they can do. So if that is one of the reasons why we should have a foreign marine, I think it is a bad argument.

NO SAILORS FOR DEFENCE.

It is said we must have ships in order to man our men-of-war with sailors. In my younger days, when the ships were all sailing ships, there did exist sailors, but they are very few and far between now.

Why? They are not necessary. A ship never fights under canvas any more, and you need only marines. Our men-of-war's men are gunners as well as sailors, and you can train a countryman in two years to do all the service necessary on board a battle ship. Therefore you do not need technical sailors, with the exception of, say, 10 or 15 men for special duty on each ship, splicing a rope, etc.

The sailors do not exist any more. Go on a Mallory liner, or a Morgan boat, or a Southern Pacific boat, and I take it for granted you will find that seven-tenths of the sailors on such a boat have never been on a sailing vessel, and sailors can only be made on sailing vessels. They can not be made on a steamer except for the particular duty which they have to perform on such a vessel. On a man-of-war there is gun practice, and for that service you can train men from Kentucky or Dakota or anywhere else. Our naval officers come from the interior of the country as much as from the coast. They are appointed from every State, and the man from the State of Washington makes as good an admiral as the man from Delaware. There is no question about training the men.

I do not know why, when it comes to the practical argument, we should pay hundreds of millions of dollars out of the taxpayers' pockets for the sake of maintaining a service which at present we are not economically fitted to run. I think that is all I have to say.

MR. MOSLE. If the Senator will permit it, I should like very much to ask Mr. Moller a question.

Senator MALLORY. Certainly.

MR. MOSLE. You do not believe we should give up the idea of trying to secure this business?

MR. MOLLER. You can secure it and run it only by a subsidy, and I am against that.

TREATMENT OF SEAMEN.

Senator MALLORY. Mr. Moller, I should like to ask you a question relating to another matter on which you did not touch. As a practical man, you can probably give me some information on it. It is in regard to American seamen and foreign seamen, and the treatment they receive aboard ships of their respective nationalities. I should like to have your views of the comfort of the American seaman aboard ship and the food which he gets as compared with Swedish, Norwegian, Danish, German, English, and other sailors aboard ships of those nationalities. There has been a good deal of discussion and a great deal of controversy on that point, so far as the testimony is concerned. It has been testified before the Commission that aboard American ships men are treated more harshly than aboard foreign ships and are required to do more work. You said that you had been a seaman and a master. Can you say anything on that subject?

MR. MOLLER. Yes.

Senator MALLORY. It is within the scope of our inquiry.

MR. MOLLER. I have been in Danish, German, English, and Swedish vessels as a sailor, and as an officer in one American vessel, in which I came here. I will state that in the Scandinavian countries generally, in Swedish, Norwegian, and Danish, and in German vessels, the relationship between officers and men is of a more intimate kind than it is in either English or American vessels. In English and American vessels it is more like the boss of a shop, you might say.

The work is laid down, and you do that, and that is the end of it, and outside of that you have nothing to do with each other. It is absolute business.

AMERICAN SAILORS BETTER FED.

As far as treatment is concerned, I do not think that I could state that illtreatment or better treatment exists much more in one country than in the other. That is pretty well regulated by human nature. If a man finds himself in a certain condition, he as a rule fits himself to that condition. But there has been no illtreatment to my knowledge, as being engaged in shipping, to any greater extent in American vessels than in English vessels or vessels of other foreign nations. But in American vessels the men are much better fed than in vessels of any other country that I know of. One reason for that also is that the men do more work; and a man can not work unless he gets fuel. In American vessels, as a rule, they have what is called soft bread every day or every other day. When I quit the sea, that was, and I believe up to the present time it is, almost unheard of for a crew in any other ship. They live on hard-tack altogether. They have also a great deal more of fresh meat on an American vessel when they lie in port than on foreign vessels. Altogether, the expense per man in that respect, of an American vessel, is greater than on a foreign vessel.

AMERICAN CREWS BETTER HOUSED.

Senator MALLORY. How about accommodations aboard the vessel?

Mr. MOLLER. The fittings, as a rule, in an American vessel in the forecabin where the crew lodge are more sanitary and humane than in any other. There is no question about that. They are up to date.

Senator MALLORY. From what you say, I should judge that the life of the American sailor falls in pleasant places, except that he has to work harder.

Mr. MOLLER. He prefers American vessels for food, and he gets more.

Senator MALLORY. How long since you were master of a vessel?

Mr. MOLLER. It is now thirty-four years. I have been here that length of time.

Senator MALLORY. You have not been a master in that time?

Mr. MOLLER. No, sir; but I have been associated with that business for twenty-three years since.

Senator MALLORY. Do you know anything about the comparative rate of wages in Galveston for vessels under the American flag and under foreign flags?

AMERICAN WAGES HIGHER.

Mr. MOLLER. I can not speak positively, except that an English sailor, an able seaman, gets at present from three pounds ten to four pounds a month; say, \$20 per month. An American sailor here gets from \$25 to \$30 per month.

Senator MALLORY. I do not suppose you have had an opportunity to ascertain what an American sailor engaged in the foreign trade gets here because—

Mr. MOLLER. There are very few foreign-going vessels.

Senator MALLORY. There are very few, except to Mexico and Central America.

Mr. MOLLER. Very few.

Senator MALLORY. The idea has been ventilated to some extent that the mere fact that a vessel carries the American flag, whether she is a steamer or a sailing ship, is of itself a reason why a sailor demands higher wages on her than on a foreign vessel. That has been testified to before this Commission. One very remarkable instance was cited before this Commission in reference to a vessel engaged in the trade to Central America. She was run under the American flag at a loss, apparently, and the owners put her under the Norwegian flag; and with exactly the same crew and officers they ran her for about 50 per cent less expense. I have my doubts, although of course I did not doubt the veracity of the gentleman speaking. However, it seemed to me that it was very remarkable. Can you say anything on that subject? Do you know anything about it?

A PERSONAL EXPERIENCE.

Mr. MOLLER. I can only tell you from actual experience, which I had the first time I shipped on an American vessel. It was in South America. I applied for the position of first officer, and for some reason I did not get it, and I asked \$30 a month. This Boston vessel on which I subsequently shipped and came here I heard was an American vessel, and I asked for \$35 a month. That is the literal fact; and I got it, for the reason that we had all heard as foreigners—as I was then—that in America more money was necessary in order to live, and I was entitled to it as well as anybody else. I asked it, and I got it. I suppose a sailor here under similar conditions would say: "If I have to live on an American ship, I have to pay for American clothes and American luxuries and necessities and enjoyments, whatever life requires, and I will have to ask more money."

STATEMENT OF J. B. DENISON.

Senator MALLORY. I am informed that Mr. Denison, a representative of the Mallory Line, is present. Mr. Denison, I suppose you would not object to answering a question or two?

Mr. DENISON. Not necessarily; but I should say first that so far as the operation of the Mallory Line is concerned the information could be better obtained at New York, because I am only charged here with the duties ashore. The crews are obtained in New York for the round trip, and all the details of operation are conducted there, outside of shore duties.

Senator MALLORY. How many vessels of the Mallory Line ply between here and New York?

Mr. DENISON. We have regularly two a week, and occasionally three a week, depending on the demands of the business.

Senator MALLORY. Are you acquainted with the officers of those vessels?

Mr. DENISON. Yes, sir; I know almost all of them.

Senator MALLORY. Do you know whether, as a general rule, they are American born or foreign born?

Mr. DENISON. Yes; the officers are mainly Americans. Many of them are down-easters—from Maine.

Senator MALLORY. Do you know anything about their ability as compared with foreign commanders of ships of the same tonnage?

AMERICAN OFFICERS SUPERIOR.

Mr. DENISON. I think the officers are superior, although I must say that I have had no experience with foreign vessels, and perhaps am not qualified to speak in that respect.

Mr. MOSLE. How is that a comparison?

Senator MALLORY. What is that?

Mr. MOSLE. If Mr. Denison does not know officers on foreign vessels, how is it a comparison.

Senator MALLORY. Of course, Mr. Denison, you know these officers personally.

Mr. DENISON. Yes, I see them every time they come in.

Mr. ADOUE. Do you know the nationality, as a rule, of the men who compose the crews of your steamers?

Mr. DENISON. They are all kinds.

Mr. ADOUE. You know that all the firemen are Spaniards, who ran away from Spanish steamers?

Mr. DENISON. The firemen are Spaniards.

Mr. ADOUE. Nearly all?

Mr. DENISON. Yes, sir, and Italians, and the crew—that is, the deck hands—are Norwegians, and recently I noticed some Italians. Very seldom Americans.

Mr. ADOUE. There are very few American born in the crew?

Mr. DENISON. Very few.

Mr. MOSLE. Do you know the third and fourth officers and the third and fourth engineers aboard your ships?

Mr. DENISON. I have seen them.

Mr. MOSLE. Have you ever talked with them much?

Mr. DENISON. Not particularly, except to——

Mr. MOSLE. Do you think your quartermasters are Americans?

Mr. DENISON. I think some of them are. I do not know that all are.

Mr. MOSLE. I know that two officers we sent away are your quartermasters. There must be quite a lot of foreigners among them.

Mr. DENISON. Yes.

STATEMENT OF J. H. HAWLEY.

Mr. ADOUE. We have with us to-day Mr. Hawley. I heard you say once, Mr. Hawley, that you had been educated for the United States Navy, I believe. I do not know whether I am mistaken in that respect. Can you give the Commission any information as to technical points with respect to the operation of a merchant marine? They do not wish to know anything about the Navy, but they would like to hear from you on the subject of the merchant marine.

Mr. HAWLEY. I do not believe that what I might say would be of value.

Mr. ADOUE. You are very modest, Mr. Hawley.

Mr. HAWLEY. Of course, I have kept pace with the proceedings in regard to the building up of the American marine, especially in reference to subsidies and other measures, so far as legislation is concerned;

but when it comes to differentiating between the methods proposed, I am not prepared to express myself.

I should merely like to say, in connection with the remark about the Japanese taking the Philippine Islands, that the Navy of the United States would take care of that at all times.

STATEMENT OF BERTRAND ADOUE.

Senator MALLORY. Is there any other gentleman who desires to be heard?

Mr. ADOUE. If you will allow me, Mr. Senator, I should like to say that during the past twenty-two or twenty-three years I have been connected almost continuously with the freight shipping of this port. For sixteen years I was the manager of the lighter company, and almost daily even now come in contact with the shipping men of the city and those who visit the city.

I long ago came to the conclusion that under present conditions it is impossible for Americans to run ships successfully in competition with foreigners. The first reason why they can not do so is because it costs more to build a ship in America. Then the wages of the officers and of the crew are positively higher. The provisions are more plentiful on board American vessels, and the sailors are better fed than in foreign ships, and altogether there is no doubt that it is more expensive to run American vessels under the American flag with American crews than it is to run foreign vessels. As long as such conditions exist I do not think we can successfully compete if our shipowners are not assisted by subsidies.

The effect of subsidies upon commerce is open to debate, but the facts are that we can not compete at present on account of those three elements.

FRENCH CREWS WELL FED.

About feeding the crews, I, for one, perhaps for a very good reason, prefer the fare given on French vessels to that given on American vessels. I have occasion, whenever French vessels come in here, to see how the men are fed, and I can assure you they are fed, if not much better, fully as well as on American ships. They do not, perhaps, give them silver spoons. They may use their fingers.

Senator MALLORY. On board French vessels?

Mr. ADOUE. Yes, sir; they have wine for all their meals, and their fare is very very good. The only thing I would object to is the way the food is served. They are not very particular about that. The quarters seem to be very comfortable, and the wages are as high, I believe, or very nearly as high, as on American vessels. But whatever French vessels come here, and in fact those going all over the world, for that matter, are largely subsidized, and that is the only way they can exist. Even with the subsidy, the French merchant marine does not seem to make very fast progress.

Of the commerce of this port I should say 95 per cent is in British vessels. The wages on British ships are pretty fair. They are not quite so large as on American ships, but not very far from it. The treatment which the sailors receive on board is regulated by the law of England. I believe a captain is allowed so much to feed a sailor, but he is compelled also to give him certain food. They go by a scale.

BRITISH NEXT TO AMERICANS.

Senator MALLORY. I do not think there is any controversy about the fact that the British are probably next to the Americans in the provisions they make by law for the comfort of the sailor; but whether they are actually so—

Mr. ADOUE. They are, I believe. I am in daily contact with the foreign ships that come in here, and the conclusion I have reached is that our merchant marine will not be able to compete successfully with them for business under present conditions. The conditions must be changed.

Senator MALLORY. That is a self-evident fact. We have dropped off absolutely to nothing. Is there any other gentleman who wishes to submit his views?

Mr. ADOUE. Gentlemen, do not be bashful. I am satisfied there are quite a number of gentlemen who know as much about shipping as I do, and the Commission is here for the purpose of hearing them.

Senator MALLORY. I should like to have some information as to whether there is any established line of foreign steamers from Galveston to Europe?

GALVESTON'S OCEAN STEAMERS.

Mr. ADOUE. There are not what you would call regular lines the year round, but there are several that we call fast-freight lines. The Leyland Line is established here. It carries passengers. I believe the Leyland Line is under the control of the International Mercantile Marine Company, which I understand is owned and controlled in the United States. The Leyland Line cuts a very large figure here at present. We have also the Harrison Line. The Larrinaga Line also has a very large number of ships coming here. I do not know whether they carry passengers.

Mr. GRESHAM. Then there is the North German Lloyd Line.

Senator MALLORY. They all sail to Europe?

Mr. ADOUE. Yes, sir. Then we have the North German Line to Bremen, using a very good class of ships. They did go to Baltimore and New York. They are, of course, antiquated now.

Senator MALLORY. Do those vessels run on established lines or only during the cotton season?

Mr. ADOUE. The North German Lloyd comes in regularly once a month, and I believe sometimes twice a month.

Mr. MOSLE. Then there is the Castle Line to Antwerp.

Senator MALLORY. How often do the steamers of that line run?

Mr. McVITIE. Once a month in the winter season and once in three weeks in the summer season.

Mr. GRESHAM. How many regular lines are there here engaged in the business?

Mr. McVITIE. I should have to count them over.

Mr. MOSLE. We have more regular lines than has New Orleans.

Mr. HAWLEY. I will present a list of proposed sailings for the month of November, 1904, to and from Galveston, which will give you that information. I have indicated on the list which of the lines are maintained yearly.

The list referred to is as follows:

List of proposed sailings month of November, 1904.

SAILINGS TO GALVESTON.

From—	Steamer.	Insurance rating.	Line.	Agency.	Sailings.
Antwerp (yearly)	Wray Castle..... Penith Castle..... Middleham Castle.....	Second-class liner..... do..... do.....	Castle Line..... do..... do.....	Steinmann & Co., agents, Antwerp; Fowler & McVitie, agents, Galves- ton.	{November 5. December 1. December 30. November 24. December 22. January 19. February 16.
Bremen (yearly)	Hanover..... Frankfurt..... Hannover..... Frankfurt.....	First-class liner..... do..... do..... do.....	North German Lloyd Line..... do..... do..... do.....	North German Lloyd S. S. Line, Bremen, Germany; Alfred Holt, agent at Galveston.	{November 30. December 80. November 5. December 5.
Liverpool (yearly)	Irada..... Iraka.....	do..... do.....	Gulf Transport Line..... do.....	J. H. Welsford & Co., Limited, agents, 17 Water street, Liverpool, Eng- land; Frederick Leyland & Co. (1900), Limited, agency, J. Clark, manager, Galveston.	{November 30. December 80. November 5. December 5.
New York, coastwise (Saturday steamers call at Key West).	Chancellor..... A steamer..... Alamo..... San Jacinto..... San Marcos..... Denver..... Concho..... Nueces..... Alamo..... San Jacinto..... San Marcos.....	do..... do..... do..... do..... do..... do..... do..... do..... do..... do..... do.....	Harrison Line..... do..... Mallory Line..... do..... do..... do..... do..... do..... do..... do..... do.....	{Geo. Lingham & Co., agents, Liver- pool; Wm. Parr & Co., agents, Gal- veston. C. H. Mallory & Co., agents, New York; J. B. Denison, agent, Galves- ton.	{November 5. December 5. November 2. November 5. November 9. November 12. November 16. November 19. November 23. November 26. November 30.

^a Carry freight and passengers.

List of proposed sailings month of November, 1904—Continued.

SAILINGS FROM GALVESTON.

Destination.	Steamer.	Insurance rating.	Line.	Agency.	Sailings.
Antwerp	Miramichi.	Second-class liner.	Hogan Line	Daniel Ripley	November 5.
	Madawaska.	do.	do.	do.	November 16.
	Mineola.	do.	do.	do.	November 26.
	Corty Castle.	do.	Castle Line.	Fowler & McVitie	November 7.
	Middicham Castle.	do.	do.	do.	November 25.
Barcelona	Wray Castle.	do.	do.	do.	December 25.
	A steamer.	First-class liner.	Austro-Americana Line	Do el Ripley	December 10.
	Malin Head.	do.	Head Line.	J. Merrow & Co.	November 20.
Bremen	Frankfurt.	do.	North German Lloyd Line.	Alfred Holt.	About November 30.
	Rannover.	do.	do.	do.	November 26.
	Frankfurt.	do.	do.	do.	December 24.
	Rannover.	do.	do.	do.	January 21.
	Frankfurt.	do.	do.	do.	February 18.
	Imani.	do.	do.	do.	March 18.
	A steamer.	do.	Gulf Transport Line.	J. Clark.	November 5.
	Pennine Range.	do.	Leyland Line.	do.	November 25.
	Cheviot Range.	do.	Neptune Line.	W. W. Wilson.	November 2.
	Montezuma.	do.	do.	do.	November 10.
	A 1 steamer.	do.	Canadian Pacific Railway Line	Elder, Dempster & Co	November 12.
	Burnholme.	Chartered.	Texas-Mexican Line.	Fowler & McVitie	November 20.
	A 1 steamer.	do.	Texas-European Line.	Langbehn Bros.	November 19.
	Manveo.	do.	do.	do.	November 30.
Brownsville	do. a	First-class liner.	Galveston and Gulf Line.	E. O. Flood & Co.	November 13.
	do. a	do.	do.	do.	November 28.
	do. a	do.	do.	do.	December 13.
	do. a	do.	do.	do.	December 28.
	Pawnee	do.	do.	do.	November 2.
	Picqua	do.	Mexico-Texas City Commercial Com-	K. R. Guthrie, manager.	November 12.
	Pawnee	do.	pany Steamship Line.		November 22.
	Picqua	do.	do.		December 1.
	Pawnee	do.	Atlantic and Mexican Gulf Line.	Fowler & McVitie.	December 11.
	A steamer.	do.	do.		November 6.
Coatzacoalcos	do.	do.	do.		November 26.
	Pawnee	First-class liner	Mexico-Texas City Commercial Com- pany S. S. Line.	K. R. Guthrie, manager.	November 2.
	Picqua	do.			November 12.
	Pawnee	do.			November 22.
	Picqua	do.	do.		December 1.
Dublin	Pawnee	do.	Head Line.	J. Merrow & Co.	December 11.
	Bray Head	do.	do.		About Dec. 16.
Dunkirk (direct).	Dartmouth	Chartered.	Texas-Mexican Line.	Fowler & McVitie.	Dec. loading.

List of proposed sailings month of November, 1904—Continued.

SAILINGS FROM GALVESTON—Continued.

Destination.	Steamer.	Insurance rating.	Line.	Agency.	Sailings.
Naples.....	Dora Baltea.....	Second-class liner.....	Creole Line.....	Tex. Tr. and Term. Co.....	About Dec. 5.
New Orleans (yearly).....	Manteo ^a	First-class liner.....	Galveston and Gulf Line.....	E. O. Flood & Co.....	November 6.
	Manteo ^a	do.....	do.....	do.....	November 21.
	Manteo ^a	do.....	do.....	do.....	December 6.
	Manteo ^a	do.....	do.....	do.....	December 21.
New York (yearly; Wednesday steamers call at Key West. Bookings can also be made to foreign ports via New York.)	Denver ^a	do.....	Mallory Line.....	E. B. Denison.....	November 2.
	Concho ^a	do.....	do.....	do.....	November 6.
	Nueces ^a	do.....	do.....	do.....	November 9.
	Alamo ^a	do.....	do.....	do.....	November 12.
	San Jacinto ^a	do.....	do.....	do.....	November 16.
	San Marcos ^a	do.....	do.....	do.....	November 19.
	Denver ^a	do.....	do.....	do.....	November 23.
	Concho ^a	do.....	do.....	do.....	November 26.
	Nueces ^a	do.....	do.....	do.....	November 30.
	Alamo ^a	do.....	do.....	do.....	December 3.
	San Jacinto ^a	do.....	do.....	do.....	December 7.
	San Marcos ^a	do.....	do.....	do.....	December 10.
Progreso, Mexico.....	Galveston ^a	First-class liner.....	Galveston S. Co.....	H. Mosle & Co.....	November 7.
	do ^a	do.....	do.....	do.....	November 25.
	Pawnee.....	do.....	Mexico-Texas City Commercial Co. S. S. Line.	K. R. Guthrie, manager.	November 2.
	Piquia.....	do.....	do.....	do.....	November 12.
	Pawnee.....	do.....	do.....	do.....	November 22.
	Piquia.....	do.....	do.....	do.....	December 1.
	Pawnee.....	do.....	do.....	do.....	December 11.
Rotterdam.....	Runo.....	Second-class liner.....	Neptune Line.....	W. W. Wilson.....	November 5.
	Cymbeline.....	Chartered.....	Texas-Mexican Line.....	Fowler & McVitie.....	October 30.
	A 1 steamer.....	do.....	do.....	do.....	November 25.
	Roma.....	do.....	Texas-European Line.....	Langbehn Bros.....	November 8.
	Coulson.....	do.....	do.....	do.....	November 28.
Swansea.....	Malin Head.....	First-class liner.....	Head Line.....	J. Merrow & Co.....	About November 30.
	A steamer.....	do.....	Atlantic and Mexican Gulf Line.....	Fowler & McVitie.....	November 6.
Tampico.....	do.....	do.....	do.....	do.....	November 26.
	Pawnee.....	First-class liner.....	Mexico-Texas City Commercial Co. S. S. Line.	K. R. Guthrie, manager.	November 2.
	Piquia.....	do.....	do.....	do.....	November 12.
	Pawnee.....	do.....	do.....	do.....	November 22.
	Piquia.....	do.....	do.....	do.....	December 1.
Trieste.....	Pawnee.....	do.....	Austro-American Line.....	Daniel Ripley.....	December 11.
Venice.....	A 1 steamer.....	do.....	do.....	do.....	November 20.
	do.....	do.....	do.....	do.....	Do.

Veracruz	Galveston ^a	First-class liner	Galveston S. S. Co.	H. Mosle & Co.	November 7; November 26; November 6, November 26; November 2, November 12, November 22, December 1, December 11.
.....	do. ^a	do.	do.	do. ....	.....
.....	A steamer	do.	Atlantic and Mexican Gulf Line.	Fowler & McVitie .....	.....
.....	do.	do.	do.	do. ....	.....
.....	Pawnee	First-class liner	Mexico-Texas City Commercial Co. S. S. Line.	K. R. Guthrie, manager.....	.....
.....	Picqua	do.			
.....	Pawnee	do.			
.....	Picqua	do.			
.....	Pawnee	do.			

^a Carry freight and passengers.

Mexican-American Steamship Line plies Galveston to Tampico and Veracruz; Southern Pacific Steamship Company, New York to Galveston.

Senator MALLORY. What is the name of the line you represent, Mr. Mosle?

Mr. MOSLE. The Galveston Steamship Company, under the Norwegian flag.

Senator MALLORY. Is that the only line going to Central America?

Mr. MOSLE. No; there are three others.

Senator MALLORY. Are they included in this list?

Mr. MOSLE. No, sir.

Senator MALLORY. I should like to have the names of the others.

Mr. MOSLE. The Atlantic and Mexican Gulf Line; the Mexico-Texas City Commercial Company Steamship Line; the Mexican-American line, which runs once a week and is a regular line, and ours, the Galveston Steamship Company. I should like to ask Mr. McVitie, who is very well informed on the subject, which ports have more regular lines than Galveston. I do not believe there are more than one or two which have more.

Mr. McVITIE. A list of the lines has been supplied the Commission.

Senator MALLORY. If there is no one else who desires to favor the Commission with his views, I, on behalf of the Commission, will thank the Galveston Maritime Association for its courtesies. I appreciate the kindness which you gentlemen who have attended our meeting have shown in undertaking to give us the information we are seeking. As I stated at the outset, we did not want to prescribe what should be said by any one. We wanted to have the views of everybody who had views to communicate, because this is a subject upon which there is great difference of opinion, and it is only by the clashing of opinions that we can probably strike a conclusion which will stand.

I am advised it is desired that a representative of the Commission should go out on your bay to take a look at your improvements, and as our time is very limited, I will again thank you and declare the meeting adjourned.

Thereupon (at 2 o'clock and 45 minutes p. m.) the subcommission adjourned.

HEARINGS AT NEW ORLEANS.

ROOMS OF THE BOARD OF TRADE,
New Orleans, La., Monday, November 14, 1904.

The subcommission met at 10.30 o'clock a. m.

Present: Senators Martin and Mallory and Representative Spight.

ADDRESS OF CAPT. THOMAS J. WOODWARD.

Mr. WOODWARD. Gentlemen of the Merchant Marine Commission: As chairman of the committee on behalf of the restoration of American shipping to get the consensus of opinions from commercial men in this port, and on behalf of the members of the board of trade and the commercial men who are assembled here, I wish to extend to you a very hearty welcome to the port of New Orleans.

We are very much gratified that the Commission has visited our port. Its object is one in behalf of which we have long sought to give expression. This city is largely interested in the foreign trade, and we are very much gratified to see the interest that has been taken by Congress in any measure looking to the upbuilding of the American merchant marine. It is not necessary for us to go into the details

of the causes of the decline of the American merchant marine, or the reasons why a shipping bill has not heretofore been enacted by the Congress of the United States.

We are assembled upon this occasion to get the opinions of our commercial men. We have no set programme marked out on the part of the board of trade, but men who are conversant with the needs and necessities of this port and of American commerce generally will be glad to give you whatever information they may have.

I hope the researches which are being made by the Commission will result in great good to the merchant marine of the United States.

RESPONSE OF SENATOR MARTIN.

Senator MARTIN. On behalf of the members of the Commission who are present I desire to thank Captain Woodward and his committee and the board of trade of this city for the courtesies they have tendered us and for the interest they are taking in this very important matter.

I will say briefly that an act of Congress was approved on the 28th day of April, 1904, creating this Commission. I will read an extract from that act of Congress, as it gives in the briefest possible way the objects we have in view:

That it shall be the duty of this Commission to investigate and to report to the Congress on the first day of its next session what legislation, if any, is desirable for the development of the American merchant marine and American commerce, and also what change, or changes, if any, should be made in existing laws relating to the treatment, comfort, and safety of seamen, in order to make more attractive the seafaring calling in the American merchant service.

That the Commission shall give reasonable time for hearings, if deemed necessary, and if necessary it may appoint a subcommission or subcommissions of its own members to make investigation in any part of the United States.

I will say that the Commission did appoint a subcommission to visit the South Atlantic and Gulf ports, consisting of Senator Mallory and Representative Spight, both of whom are present, and Representative Minor, who has not yet arrived, and myself. And we are here to give an opportunity to those who are interested in this important subject to present their views, which will be taken down by a stenographer and submitted to Congress, together with such report as the Commission may agree upon.

You will see from the extract that our object is to hear from all classes of people interested in the reestablishment of the American merchant marine on the high seas. We want the best thought on this subject. We not only want to hear from the shipbuilders and ship-owners, but we want to hear from the men who are interested in the commerce which is to be carried in those ships, and we want to hear from the men who operate those ships, so that if there be anything in the navigation or other laws of the country militating against the upbuilding of American shipping we may seek a remedy for it.

We shall have to leave very largely to the local committee which has been appointed by the board of trade the lead in this matter. We have a list which has been presented to us of persons who are willing to present their views to the Commission, and first on that list is the name of Captain Woodward, who has just briefly spoken, and we shall be very glad indeed to hear from Captain Woodward on this subject.

STATEMENT OF CAPT. THOMAS J. WOODWARD.

Mr. WOODWARD. Gentlemen of the Commission, I am not fully prepared to make a set speech to-day, but I have been familiar with the commerce of the United States for a great many years. I was formerly a seaman, and I was a sea captain for many years. I commanded sailing ships. I have commanded steamers for a number of years.

I have always been engaged in the foreign trade, and of course I understand and appreciate some of the great necessities of the upbuilding of the merchant marine of the United States. There are present a number of gentlemen who have been interested in that work for a number of years. The American Shipping League was started some years ago. I was the first president of that league. It was originated in New Orleans in 1886, and I issued the first call on behalf of the upbuilding of the American merchant marine. That league did a great deal of yeoman service, and accomplished a great deal of work. There were conventions held in different parts of the country with very good effect—in New Orleans and Alabama and Missouri and Washington and New York and Boston, and all the large seaports and inland places as well. A great many able men visited or presided over those bodies, and one of the most intellectual men and the man who, for one not born on tide water and who had not been reared on tide water, gave the best definition of the needs of the American ship, was Senator Morgan, of Alabama. I do not know that I have ever heard a man give a more explicit detail of the needs of American commerce than he—both of the merchant marine and the Navy. There were a great many other able men present. Ex-Governor Stanard, of Missouri, was there, and they conferred not only as to that league but as to the American shipping bill, which has been presented on different occasions.

ALWAYS FRIENDLY.

I wish to say that this board of trade has always been on record as favoring the restoration of the merchant marine, and has always favored such a bill as would be an equitable measure on which to go before the country, a bill to suit all conditions, not only of the carriers, but of the builders and all others. There were a great many men interested at that time in American shipping who have passed away since 1886, very able men, men very much interested, and we have, of course, a great many men at present in the United States who would gladly welcome the upbuilding of the American merchant marine, but we are confronted with one thing which causes a little stay of the proceedings which may be taking place—that is, so many of our mercantile men now, in all the salt-water ports, are largely engaged in foreign bottoms, and of course it is not to be expected that their interests favor the upbuilding of the American merchant marine.

Senator MALLORY. You say they are “largely engaged in foreign bottoms.” Do you mean pecuniarily interested in foreign steamers?

Mr. WOODWARD. Not so much interested as that they are doing the business of foreign bottoms in the different ports, New Orleans and Mobile. In Pensacola, I do not know that it is true so largely. But in New York foreign bottoms are very largely represented by American people, and of course from that source we can not look for so much aid as we might otherwise.

A BETTER BILL.

It is to be hoped, though, that some bill may be framed, to be presented to Congress, and that it will be enacted, which will give relief to American shipping. You remember, I presume, that the Fifty-fifth Congress came within two or three votes of passing the shipping bill, and the bills which have been up since that time have not been bills which, perhaps, just represented all the interests of our people. The bill called for too high a standard; that is, it would throw the operation of the ships into large corporations, and it seems that the large people would have got a greater advantage than the small ones. It is hoped that a bill will be presented at the coming session which will be an equitable bill and suit all conditions of our people and of the merchant marine.

Of course one cause of the delay in these matters is quite evident. Our people who were formerly engaged in American ships found that their interests in shipping did not pay to such an extent as investments in our internal improvements paid. Consequently they have been very largely engaged in the last years in internal improvements, which have given them a very much larger interest on their money than the ships did, and in the meantime foreign commerce has largely decreased in consequence. So now there is a great task before the people of the United States in order to recover the part that has been lost through these causes, and the only way, in my opinion, in which it can be done is by creating a sentiment all over the country in behalf of the American ship. There is a large production in the United States which has to be carried by foreign bottoms, and then there is the large amount of immigration that is brought to this country, as well as the products brought here in English and other foreign bottoms. A vast amount of capital is involved in the freighting of these products to foreign countries, and a vast amount is paid for the importation of goods which foreign countries are contributing. I am glad to note that our exports are largely in excess of our imports, which is favorable.

It would seem to me that you would have to take the same action that we did to get from Congress our local improvements in this direction—by sending out commissions over the country, going to all the boards of trade and other commercial bodies, and creating a sentiment in favor of the American-built ship as a means of transporting our products to foreign countries. We did that from this section of the country, and from all our exchanges we sent commissions out all over the country and created a sentiment in favor of our improvements on the Mississippi River, particularly at the mouth of the river. We went in a body to Congress, and we continued hammering away, creating this sentiment all over the country, interviewing Representatives and Senators from the Western country and all over the North, until after a great deal of very hard work by the members from this port we succeeded in obtaining the necessary appropriations (and it seemed to be the only way to get them) for the benefit of deep water at the mouth of the Mississippi River, which improvement is now in progress.

TO SUIT ALL CONDITIONS.

I do not feel competent to outline the kind of a bill which should come before Congress, but I think the able men in the country who are engaged in and are familiar with commerce should be called together to formulate such a bill as will suit all the conditions of the country, both of the carrier and the builder and the shipowner, and then after such a bill is formulated I think it ought to be sent to the country broadcast, and a sentiment should be created in favor of that bill. I hardly see how it can be done by a few close corporate bodies by themselves.

Those are my views in regard to creating a sentiment in favor of the American ship. When we consider the vast amount of money we pay each year for freight to carry our products to foreign countries, it does seem to me as though something ought to be done on this side to keep that money at home and to stimulate our American people to take up the sea as a profession. There is nothing at the present time to stimulate our young men who are growing up to take to the sea for an occupation as it was when I was young. I went to sea in the forties. I followed it for a good many years, and at that time there was an opening, a chance for a man to advance in that profession.

NOT THINKING OF SHIPS.

When you go out into the Middle Western States, you find that the men do not know anything about commerce. They do not know anything about ships. I have been to several conventions. I was at the convention in Denver; I was at the convention in Houston three years ago. When the subject of the reestablishment of the American ship was brought up, they just wanted to get onto us and crawl all over us. Take Texas, take Utah, take Colorado, take Oklahoma and all those Western States, and their people do not know anything about ships. If they can get their products to the cars and get their money they do not care anything more about it. They expect that somebody at the end of the line will take care of their products. Perhaps they do not give it a thought. They do not care anything about the ships that are to take the products to a foreign country so long as they are provided for.

At the convention in Galveston in 1894 we caucused on the ship measure which was to come up before the convention, and ex-Governor Stanard and I were the only two who actively favored it. The delegates from the Middle Western States had made up their minds to kill that bill if we brought it up in convention, and kill it effectually; but after caucusing and finding that we had no advocates of the bill except Mr. Stanard and myself we concluded we would not introduce the bill in the convention, and we did not. We did not give them a chance to get up a raid on that shipping bill and cut it to its very core. So we left it out. It was the same in Denver, but not at Memphis, for Memphis is one of the cities tributary to the river, and all those tributary cities have been advocates of measures of that kind—American ships and deep water and the Panama Canal.

"EASTERN PIRATES."

When you come to the Middle Western States, unless something is done to get those men to understand the nature of this bill and what it means, I think it will be very hard work to get all those Western States to advocate it or to get their Representatives to vote for it when the bill comes up. They style the tide-water men as eastern pirates. That is the term they gave them in convention. They said, "These men are oppressive; they want everything." The only thing they want out there is legislation in favor of silver, and not for ships and not for deep water. They accuse the "eastern pirates" of oppressing them simply because they went to work and built railroads to develop the country, and gave them irrigation works, and eastern capital was put in high buildings. Still they say it was oppression. They can very soon relieve themselves of that oppression if they will get the money together and buy off the eastern capitalists.

I am just giving this outline. There are some able speakers here who can probably give a better idea of our needs than I can, because I am not competent to deliver myself in the way I should like to do before this Commission.

EVERYWHERE FAVORABLE.

Representative SPIGHT. Along the line of your suggestion of the creation of sentiment in favor of the upbuilding of the American merchant marine, I have attended practically all of the sessions of the Commission on the different coasts, and we have found almost a universal sentiment that something ought to be done. The only difference of opinion is with respect to the remedy. Have you any suggestion to make as to what would be the proper remedy? We should be glad to have any suggestions of that sort.

Mr. WOODWARD. A remedy for the present condition?

Representative SPIGHT. Yes, sir; something that would be effective in building up the merchant marine. I think all agree that something ought to be done.

Mr. WOODWARD. Yes.

Representative SPIGHT. I think that is the general sentiment.

Mr. WOODWARD. I think the first thing should be the calling together of the able men in the country. I was in Washington several times. I talked to Senator Frye considerably about it. I was at his hotel. I saw him and talked over that bill. There were some features of that bill which did not exactly suit the conditions of the country at that time, but I think the men of the country who are interested and engaged in shipping ought to be called together, and they should formulate some plan or frame a bill which should be presented to the Congress. It should be an equitable bill, one that would suit all conditions. These bills have not all suited exactly the conditions of the country and of the merchants.

MUST PULL TOGETHER.

After that bill is formulated, after you have adopted some form of bill to present to Congress, then I think there ought to be some people, either from the exchanges or from the country at large, who should be inter-

viewed—boards of trade and chambers of commerce all over the country—in order to get a full indorsement of the plan. We had to do that here in order to get our measures through. After going to Congress ourselves and fighting in behalf of the measures, then we sent out a body men all over the country to go before all the boards of trade and chambers of commerce and present our measures to them and get their indorsement of them. That was a very great service to us, because the people, when the bill was brought up in Congress, were conversant with it and knew just what was being voted on.

While it is well to visit the tide-water ports, it is the inland people whom you want to meet. You want to meet the Congressmen from the interior States. They should be made acquainted with this matter. They know very little about ocean transportation and ocean commerce. A great many men are talking and saying that we are oppressing commerce because we do not give them the privilege of buying free ships. However, it is not the men who have the money to buy free ships who talk about this terrible oppression. It is the men who want to make some money out of the free-ship business, but not to buy the vessels themselves. If a man wants a ship built and has the money to get a ship, it is a great deal better for him to have it built in the United States. He can get a better ship than he can by going abroad and getting a tramp ship. It would be a sad commentary on our American commerce if we admitted all of these third-rate built ships into the United States, to class with steamships such as we are building at the present time. There are no ships in the world to compare with our American-built ships of the present time. The Pacific coast is realizing that fact. Look at the fine ships they are getting out on the coast for the oriental trade. Look at our fine coastwise ships here.

Representative SPIGHT. What effect would the free-ship policy have upon the shipyards of the country?

EFFECT OF FREE SHIPS.

Mr. WOODWARD. It would destroy the shipyards of this country. Our shipyards now are very prosperous. For the past two or three years every shipyard in the country, from Bath Me., to California, has been full. There are great openings for shipyards in this country at the present time. They are being inaugurated every day and every year, more and more. There are fine facilities in the South to build ships. What finer port have we than Pensacola? We have fine water. We have deep water for entering and going out. We have terra firma over there. We have dock privileges. We have open rivers for the interior traffic. It is near the Gulf.

Senator MALLORY. Is it not a fact that most of the shipyards in this country are engaged in building vessels for coastwise commerce?

Mr. WOODWARD. Yes, sir.

Senator MALLORY. We have none building ships for the foreign trade.

Mr. WOODWARD. No, sir; except those on the Pacific coast.

Senator MALLORY. It does not amount to much.

Mr. WOODWARD. They have some very fine ships on the Pacific coast now, and before a great many years I calculate they will have a tri-weekly line running from the Pacific coast to the Orient. That is my prediction; that is, if American commerce is fostered as it should be.

Senator MALLORY. Is it not a fact that American shipyards are maintained by ships for the coastwise trade and for the Navy?

Mr. WOODWARD. Very largely for the Navy and coastwise commerce. That is true.

NO AMERICAN LINES.

Senator MALLORY. I should like to ask you something relating to the commerce of New Orleans. Have you any American lines out of New Orleans to foreign ports?

Mr. WOODWARD. No, sir.

Senator MALLORY. Do you ever have American vessels come in here and take cargo for foreign ports?

Mr. WOODWARD. No, sir.

Senator MALLORY. Do you know how New Orleans classes, in point of the number of ships that come in and go out in a year, as compared with New York and other ports. Is it second, third, or fourth?

Mr. WOODWARD. What is that?

Senator MALLORY. How does New Orleans rank as a shipping port on the basis of the number of vessels (I do not speak of the value of cargoes) that come in and out of New Orleans in the course of the year? How does she compare with New York, for instance, or Philadelphia, Boston, and Galveston?

Mr. WOODWARD. In number of ships, coastwise?

Senator MALLORY. No; ships of all kinds.

Mr. WOODWARD. Coastwise and foreign?

Senator MALLORY. Yes.

Mr. WOODWARD. New Orleans stands next to New York. There are about 1,800 in the trade here, as compared with 900 for Galveston.

Senator MALLORY. In other words, then, she classes about second in point of shipping?

Mr. WOODWARD. In point of shipping and exports.

Senator MALLORY. There is no line of American vessels sailing to foreign countries out of this second great port of the United States?

Mr. WOODWARD. No, sir; except out of New York.

Senator MALLORY. I say out of this port.

Mr. WOODWARD. No, sir; not out of this port.

TREATMENT OF SAILORS.

Senator MALLORY. Have you had any experience in the matter of the treatment of sailors aboard ships in recent years, as to how they are treated, relatively, on the different ships?

Mr. WOODWARD. Not so recently. The last ship I commanded was in 1867. Of course there have been some changes made since then.

Senator MALLORY. Have you had any opportunity of observing the condition of American seamen on board ship as compared with foreign seamen?

Mr. WOODWARD. Yes, sir.

Senator MALLORY. What is your opinion as to the treatment which they receive, or as to any changes which you may think desirable?

Mr. WOODWARD. My opinion is that men who are men will, as a general thing, be treated very well—men who know their business. But the great trouble at the present day is that we have not American

seamen who can command respect, and who have the ability to perform the duties which are allotted to them on board ship. Consequently it makes a hardship not only on the men, but on the business of shipping. That is one great cause.

We do not give the same protection to seamen that England, Germany, and France do. We have no laws, much, relating to sailing ships. They seem to have been neglected. Our American steamships are well conducted. The seamen on those ships live at the terminal or the initial port of entrance or clearance. Those men have their families. They live well. They are well provided with accommodations, and they are well treated. We do not hear of any complaints on our steamers. But some of our foreign-going ships have to huddle a lot of men on board, shanghaied and otherwise, when just on the point of leaving. We have not the nursery to draw from that we used to have in my time, because we then had sailors.

Senator MALLORY. That is true, but I am speaking of the treatment the men receive at the hands of the masters, and the accommodations aboard ship for their comfort, as compared with foreign ships.

Mr. WOODWARD. The accommodations are ample, or better than on foreign ships, as I consider it.

Senator MALLORY. Do you know of any legislation which would be desirable in order to improve the condition of the American sailor on the American ship and make his calling more attractive?

Mr. WOODWARD. I think the law should be amended so as to give the seamen on board ship full protection; more in line with the foreign or English regulations.

Senator MALLORY. In what respect?

Mr. WOODWARD. So that the seaman will always be protected.

Senator MALLORY. In what respect does the American seaman lack protection which seamen on a British ship have?

Mr. WOODWARD. Let the officers be under surveillance, and let them be under strict regulations that the seaman shall not be abused, and if he is abused he shall have a right of redress.

Senator MALLORY. Has not the American sailor that right now?

Mr. WOODWARD. He has it in some degree, but the American ship has been neglected. Her equipment and outfit have been neglected. There have been ships coming to the port of New Orleans which I know were not prepared to more than half take care of their crews if they met with an accident, a collision, or if they should spring a leak or founder in a gale of wind. There has been no commission to regulate that. I have been in touch with American shipping and foreign shipping all my life—all the thirty years I was in business here. Our business was with ships of all kinds, American and foreign ships, so I am well acquainted with the conditions.

Of course, when you come to formulate something for the protection of those men, it will require a little study and a little deep thought to ascertain what is necessary.

Senator MALLORY. Then what you say may be summarized in the statement that under some conditions the British sailor receives better protection on board ship than does the Americans?

Mr. WOODWARD. No, sir.

Senator MALLORY. He does not?

AMERICAN SAILORS BEST CARED FOR.

Mr. WOODWARD. No, sir. He is not so well provided with food or quarters as is the American seaman at the present day. The American seaman, I consider, is well provided for, provided he is a seaman. But you take a large ship going out of port with 25 or 30 men aboard. We have only very few of those large ships. When the master ships that crew aboard, what has he to take? He must take whatever he can pick up along the streets.

Senator MALLORY. Is not that the case with foreign ships?

Mr. WOODWARD. No, sir. Those seamen have to have a registry as being seamen in the foreign trade. They can not ship in any other way. The London Board of Trade protects the ship.

Senator MALLORY. I am speaking of the men who go before the mast, not the officers.

Mr. WOODWARD. I mean the men before the mast. Our sailors live better and are treated better and have a great deal better accommodations. Take our coastwise ships. In that service there are some of the finest ships in the world. Take the Morgan Line. There are no finer ships anywhere. They are up-to-date freighters. Every man is provided with good accommodations, with ample space and light, and good provisions. I would have been very glad in my day if I had got such provisions. Then it was a hard time.

Senator MALLORY. Have you had an opportunity to examine into the conditions of sailing ships as well as steamships?

Mr. WOODWARD. Yes, sir; I have.

CONDITIONS HAVE IMPROVED.

Senator MALLORY. How do the provisions for the safety and comfort of the crew compare with those furnished in your days?

Mr. WOODWARD. They are a great deal better.

Senator MALLORY. They are better now?

Mr. WOODWARD. Yes, sir; the men are fed better—they have more to feed on. Their accommodation is provided for better; that is, on what few American ships we have. But when you speak of American ships at present it is simply a very small matter.

Representative SPRIGHT. Has there, within your knowledge, been much complaint in recent years of ill treatment of American seamen on American vessels?

Mr. WOODWARD. Only occasionally, and when mutinous fellows go on board ship. I have been through that and I know what it means. They are what we call sea lawyers. They are not sailors. They do not recognize authority at all. They are mutinous, and the first thing they do is to try to inaugurate some mutinous spirit among the balance of the men who want to do right. In consequence, it brings down on them perhaps a little harsh treatment, sometimes deserving and sometimes perhaps not so. But the captains and officers on our ships, what few we have, are men of pretty high standing. I do not think they want to put themselves in a position to be hauled into court every time they get in port. I have known of but very few instances in the last few years.

THE DIFFERENCE IN COST.

Representative SPIGHT. Going back for a moment to free ships and American shipbuilding, do you know why there should be any material difference between the cost of building a ship in American yards and in foreign yards?

Mr. WOODWARD. The subsidized ships in foreign ports have to be built up to a certain standard. They are of the highest class.

Representative SPIGHT. I mean as compared with ships of the same quality.

Mr. WOODWARD. There is not so very great difference. There is some difference because we hold that in the United States we build a little better ship. But the ships on the other side that are subsidized, that are on the large through mail routes, are ships of very high class. But of the other ships—the free ships that a great many of our people are clamoring for—I guess there are a lot lying in the docks at foreign ports waiting for somebody to buy them or to give them freight enough to make one run to a port, not expecting to make any profit, only to get the ship in order and start her out again. They are inferior ships. Anybody engaged in commerce knows those ships are inferior. You can buy them to-day for one-half their cost. When you are comparing prices on a ship of that kind, you know you are putting the American shipbuilder in a very bad light.

You think he is a very high-priced man. But if anybody has the money and wants a ship for his own purpose, to convey his goods to another port, the American-built ship will suit his conditions the best. It is better for him to pay a little higher price than to go and get a ship of the class I have spoken of, because if you admit free ships into the United States, then you are going eventually to get them in the coastwise trade. At present our shipyards are protected in that respect. We want more shipyards. We are going to have them, too, and they are coming South. There is plenty of capital all through the North and West ready to be invested in the southern country. It is coming, and we will not only have shipyards but we will have ships, eventually. They are coming. We were once the queen of the seas. When I first started to sea our ships were in the greatest demand, and they were the finest ships in the world, and were so acknowledged.

Representative SPIGHT. You would like to see that condition restored, would you not?

Mr. WOODWARD. Yes, sir; I would indeed. Gentlemen, I will not take up any more of your time.

STATEMENT OF PEARL WIGHT.

Senator MARTIN. The name of Mr. Pearl Wight appears next on the list. If he is present, we shall be glad to hear from him.

Mr. WIGHT. Mr. Chairman and gentlemen, I am not a public speaker, but a plain business man. I will not offer you figures, except in a business line. But if the American people could thoroughly see the necessity, as the people can see it who were born on the coast and have lived where ships are built, they would soon have the legislators pass a bill similar to the ship subsidy bill. I mean if the great West and South could once see the condition as it really is; and I refer to

the ship subsidy bill or a similar bill. It provided for a certain class of ships, very large ships, and very elegantly built, and built so that they could be taken possession of by the Government at any time for service. Of course, that is a very much more expensive ship than is necessary for trade relations.

I have watched for the last twelve or fifteen years the attempt to pass a subsidy bill. It originated here; that is, Captain Woodward was the first president of the organization. He and another gentleman started it, and the sentiment spread all over the United States and the bill came within 2 votes of passing Congress.

CARGO SHIPS NEEDED.

But I have come to the conclusion, after all these years, that the great mass of the people in the West and South do not believe in it, because they fear that if Congress passed a bill to aid in the construction of such ships as those specified, the owners would build the ships and put them on routes to Liverpool, Havre, and other European ports that are already supplied with all the carrying capacity they need. If I were a farmer and lived in Minnesota, naturally I would feel that what I wanted was to get my wheat to Liverpool and Havre as fast as I could. If I lived in the South, as I do, except for the fact that I am a commercial man, I would want a route to get my goods to the consumer, and it would not make very great odds to me whether it was in English or Norwegian or other foreign bottoms. What I would be looking after would be the actual saving to my farm or shop, as the case might be.

NEW LINES TO NEW MARKETS.

I believe if you gentlemen in Congress would frame a bill on different lines, so as to provide better shipping facilities and new or enlarged markets for the farmer in the West, the flour manufacturer, the New England manufacturer, the Southern cotton manufacturer, and which would give some trade to those localities, that those men would get behind you, and their Representatives in Congress would vote for a bill to subsidize American ships built for that purpose, to sail to ports with which we have no communication to-day—ports which we can not reach except going by way of London or Liverpool. Until within two years you could not ship anything to Brazil unless you shipped it to London or Liverpool. We have a line once a fortnight to Brazil. It is a foreign line, with chartered boats liable to be taken off at any time if they do not pay. There is a vast amount of trade which belongs to Savannah, Mobile, Galveston, New Orleans, for which we have no transportation.

As you gentlemen know, you do not get any passengers until you run a stage line. We never would have had the great West if we had waited to build the roads until after the people had settled in that country. Since the day of the old Romans, trade has followed trade routes. They built roads for trade there. South America, Central America, and Mexico are not half covered; some of the territory is not covered at all with steam transportation or any transportation except occasionally a chartered boat when a man has a whole cargo. The only question is how will Congress formulate such a bill; how

will you gentlemen get together and frame such a bill. Such a bill, framed on proper lines, will be passed without a doubt by an overwhelming majority. You can not restrict it to ships fit for the Government to take for war purposes. It would cost so much to run such ships that no merchant would build such ships to open up a new trade.

A TYPICAL EXPERIENCE.

We have had a case right in point here in the city of New Orleans. Four years ago a certain railroad in Mexico wanted a steam line from here to Tampico, to connect themselves with the other Texas roads. They came to our firm, Captain Woodward and myself being partners then, four or five years ago, and offered us a quarter interest in the line. We told them it would mean a loss of \$100,000 to start those steamers and run them. They chartered the steamers—Norwegian steamers—and the first year they lost over \$100,000, but they absorbed that loss in their regular connections. They now have that line down so that it about pays itself out each year, and they are talking about building ships in Norway.

Senator MARTIN. Where does the line run?

Mr. WIGHT. From New Orleans to Tampico.

Senator MALLORY. What is the name of the line?

Mr. WIGHT. The Mexican American Steamship Company. I am a director in it. The railroad absorbs the loss. They have to have the line in order to make their connections with other roads. They can afford to absorb the loss. But do you suppose the merchants of New Orleans could give away a hundred thousand dollars? It shows that if the Government will give a subsidy for five or ten years by the end of ten years the ships will be paying.

James E. Ward, of New York, will tell you that it cost them nearly a million dollars before their Cuban line paid. Now they are making 30 or 40 or 50 per cent a year.

We all know that it would have taken a long time to produce steel rails in this country without protection. I am not a protectionist after an industry does not need protection. I am a protectionist with the ultimate aim of free trade. If an industry caters to us all it should have some protection. Look at the coastwise trade of the United States. It is in a flourishing condition everywhere because it is protected against foreign ships built by cheap labor, run by cheap men, and operated cheaply. Foreign commerce in every direction is managed more cheaply than we can manage our own ships.

LOST A HUNDRED THOUSAND.

Senator MALLORY. From your statement I understand that this American-Mexican Line did not only not make money but it lost money?

Mr. WIGHT. It lost nearly a hundred thousand dollars the first year.

Senator MALLORY. That line was conducted by Norwegian ships?

Mr. WIGHT. Yes, sir; chartered Norwegian ships.

Senator MALLORY. They are run more cheaply, I understand, than any others.

Mr. WIGHT. There is no doubt about it. They beat the English.

Senator MALLORY. If they had been American ships the loss would have been largely over a hundred thousand dollars?

Mr. WIGHT. It would have been somewhat over that. We would have built up our trade more quickly with finely built American ships with fine cabin accommodations. Then, too, the home feeling always helps. There is no doubt about that.

Senator MALLORY. The inference to be drawn from what you have said is that it is absolutely necessary that there should be some aid given to lines starting out as pioneer lines?

Mr. WIGHT. No matter where built.

Senator MALLORY. They are bound to lose money at first?

Mr. WIGHT. Yes, sir; they can not go to a place and make the trade. The trade follows the steamer.

Senator MALLORY. If I am not throwing you off the line of your thought, there is a matter on which I should like very much to get some information, and that is as to the expense of running a Norwegian ship as compared with the expense of running an American ship.

Mr. WIGHT. I have not the figures at hand. I can make up and mail to your Commission a statement from actual experience.

Senator MALLORY. I wish you would.

Mr. WIGHT. I can do, that at the office. I can tell you the exact cost. I know it is very much cheaper, because I happen to be vice-consul for Sweden and Norway, and I know they often bring those ships over here with crews hired for terms of three years at very much less wages—from \$12 to \$15 a month.

Senator MARTIN. Did the line from Tampico to New Orleans pay expenses last year?

Mr. WIGHT. Not quite, but very near it. The railroad is going to buy or build ships, and they are going to put on another line from Galveston to Mexico.

AID FOR SPECIAL LINES.

Senator MARTIN. Instead of a general subsidy you would recommend subsidies for special lines between our ports and foreign ports?

Mr. WIGHT. I do not want to depart from the theory I started upon. The American people are big enough and rich enough and grand enough to restore the American ship on the ocean and to let her sail where she pleases. Even if it cost \$20,000,000 a year, in the end it would be better for the nation, because it would give us the American sailor behind the gun. But I do not believe it is practicable. What we have to come down to is something practicable. Congress will never do that because the constituents of the men who will vote the money will not benefit from it. The shipbuilders will get it all.

Senator MARTIN. You want to subsidize lines to ports with which we can build up commerce?

Mr. WIGHT. Yes, sir, and to pay nothing to any others. You gentlemen who have to frame such a law can get the necessary information. We are speaking here at the second coffee port of the United States. It is all brought in foreign bottoms. One gentleman said the way to get over that is to put your prohibitive tariff on goods coming in ships other than those of the nation shipping the goods; to let each

nation bring their products free to us. If Brazil ships, let her products come in free, but if England ships Brazilian products, impose 10 per cent upon them. That would be absurd, because the English would put their ships under the Brazilian flag the very next week. We are the only nation which prohibits that. We saw that in the Cuban war. Did we not see English ships—and are they not running to-day—owned in England, put under the Spanish flag, because they brought goods out of Cuba under the old régime at a lower rate because they were Spanish, while every dollar's interest in the ship was owned in England?

Senator MALLORY. You think that would be an insuperable objection to the discriminating duty idea?

Mr. WIGHT. Of course, because they would go down to Brazil and get Dom Pedro So-and-so to become the nominal owner of the ship, but they would own the ship nevertheless. They would change the register by telegraph.

STATEMENT OF JAMES W. PORCH.

Senator MARTIN. The next name on the list is that of Mr. James W. Porch. We shall be glad to hear from him.

Mr. PORCH. Mr. Chairman and gentlemen of the Merchant Marine Commission, I am not in the steamship business. I am a merchant in New Orleans, and naturally, this being a seaport, I am vitally interested in the subject which you are now considering.

Before I go into the merits of the matter from our point of view, I desire to express my thanks for and appreciation of the diligence with which you have pursued your inquiries since the date of the commencement of your investigation, May 23 last, as evidenced by the two printed volumes that are already in circulation, covering a total of 1,481 pages. These records show the diligence, the wisdom, and the broadness of the scope of your inquiries.

PORT OF NEW ORLEANS.

I have no doubt you have pretty well made up your minds as to what sort of subsidy will best cover the field, and therefore in my remarks I shall deal particularly with this matter from a New Orleans point of view.

The Merchant Marine Commission was created by act of Congress approved April 28, 1904, and as a Commission there is no doubt you are making inquiry along the most important and vital lines that concern our growth and development in the foreign marts of trade.

It was my pleasure to accompany your Commission yesterday in a visit to the wharf, or harbor front, of our city, and during that trip, covering the partial harbor front, to the chagrin, I think, of everybody on our committee as well as on the part of our guests, not one American flag was seen from the stern of any of the steamers plying to foreign ports. The only American steamers were those directly engaged in the local or coastwise traffic. This, of course, is a condition of things that we of New Orleans do not look upon with gratification. When you further consider the development of our wharf front and of other facilities of which I will speak later, you can not wonder that the condition as it now applies to steamers handling our immense tonnage is one that we hope in the near future to see changed.

ISTHMIAN CANAL.

We of the board of trade have for a long time been aware of the wonderful change that will be made in the movement of the world's commerce when the Panama Canal is finished, and we further realize that this change is going to redound more to the benefit of New Orleans than perhaps any other port; but this is coupled with the necessity for such changes in the laws of our country as will make the American flag the preeminent medium or emblem of ocean-going service, as far as the immediate and direct interests of the United States are concerned.

I am not here to talk for other ports. I am here to talk for New Orleans and from the New Orleans point of view, with such statistical data and such information as I have been able to accumulate.

We realized the importance of this canal before the treaty was signed and before the measure to insure its digging became a law, and at a meeting of the board of directors of our board of trade on December 9, 1903, we passed a series of resolutions covering what we consider to be our immediate necessity in so far as the use of the finished Panama Canal is concerned. As a preamble to these resolutions which I shall read we used the celebrated words of Mr. Grow as they appeared in a Manila newspaper of recent date. They seem to us to be particularly apt and to cover the case entirely:

"The Atlantic Ocean, rolling between two mighty hemispheres, is a German, French, and English sea, but the Pacific Ocean, with twice the area of water, washing the shores of nationalities containing two-thirds of the population of the globe, is henceforth to be an American sea, covered with American ships laden with products of American industry. The commerce of half the world, realizing the dream of Columbus, will go westward to the Indies."

RESOLUTIONS OF THE NEW ORLEANS BOARD OF TRADE.

Our resolutions read as follows:

"Whereas it is patent to all that the Government of the United States intends to speedily construct a canal across the Isthmus of Panama, which, when completed, will be of untold commercial value to the people of this country in general and to the residents of the Mississippi Valley in particular; in the latter case, however, providing satisfactory transportation facilities can be so arranged for as to take full advantage of the developed opportunity; and

"Whereas if the canal were finished now or at any time in the near future the conditions of our present ocean shipping facilities are so entirely inadequate, or, better said, entirely missing, that we would not be able to avail ourselves of what the Government has made possible by the expenditure of hundreds of billions of dollars; and

"Whereas there are 22 States in the Mississippi Valley and the South and over 80 per cent of the population of the United States, based on the census of 1900, and over 450 cities of over 5,000 population each, that will be vitally interested in the thorough upbuilding and extension of our imports and exports through the port of New Orleans via the new canal; in other words, the South and the Mississippi Valley's natural outlet is through the means of its railroads and the Mississippi River and its tributaries to this port, thence through the

canal to the west side of our own country, Mexico, Central and South America, as well as to our island possessions in the Pacific and to the 500,000,000 people in the Far East: Therefore, be it

"Resolved, That as a means to the end, and as a proper and effective mode of celebrating the opening of this great avenue of commerce, the members of the New Orleans Board of Trade (Limited) do hereby urge that a steamship company be organized under the laws of the State of Louisiana, the home port of which shall be New Orleans; that the company be named the Mississippi Valley and Orient Steamship Company, with a capital of not less than \$5,000,000; that new modern, up-to-date, and full-powered passenger and freight steamers be constructed in this country under the American flag that shall in every particular comply with any ship-subsidy bill that may be enacted before their construction; that as soon as a charter is drawn up and the company organized the stock to be put on the market for popular subscription in all of the cities of the South and the Mississippi Valley, and that everybody doing business in this section be invited to cooperate in the establishment of a mutual company that shall be operated entirely in the interest of the stockholders; that this company commence business as soon as possible after the promulgation of the treaty now pending between this country and Panama, so as to be amply ready and in actual service even before the completion of the canal.

"Be it further resolved, That the governors of the various States in the South and the Mississippi Valley, and the mayors of the cities in these States, and the presidents of the various commercial exchanges in these cities, be communicated with through the board of trade and their indorsement and full cooperation in this undertaking be solicited.

"Be it further resolved, That it is understood that this company will not only act as a transportation company, but as an information bureau for all parties interested, through its connections or agencies at the ports of call of the steamships of this line—full data and information to stockholders regarding their lines of goods, possibilities of trade, credit standing of merchants, the collection laws, customs, and conditions, and all other useful information that is so necessary, especially in the inauguration of new avenues of trade.

"In other words, this company to be the means by which merchants, manufacturers, and importers and exporters who are stockholders are to have their interests fostered, pushed forward, and developed to that point that will make them factors in the new condition that our natural advantages give them.

"Be it further resolved, That a committee of three be appointed, which committee shall be designated the 'steamship committee,' and that they be, and are hereby, instructed to cooperate with such a company when organized along proper lines in procuring the indorsement of all the public officers and exchanges above mentioned."

These resolutions were passed unanimously, and I had the honor to be named as chairman of the committee thus created.

PANAMA CANAL COMMERCIAL LEAGUE.

Following closely on the heels of this Governor Jennings, of Florida, issued a call for a convention at Tampa, Fla., at which time, according to the terms of the call, there were fully and extensively considered

the ways and means of using the Panama Canal when finished, as far as southern interests are concerned.

A strong delegation from New Orleans went to Tampa. There was an exhaustive discussion of what was contemplated by the canal, and a full history of it was given by Senator Pasco.

I was again honored by being made president of the outgrowth of that convention, which, as a permanent organization, was named and hereafter will be known as the "Panama Canal Commercial League."

Before taking my seat as president of this organization, I, as chairman of the New Orleans delegation in attendance, offered the resolutions I have just read, for approval or rejection by that body, with the result that they were adopted by an overwhelming majority.

STEAMSHIP LINE TO THE ORIENT.

The whole consensus of opinion at this convention was that when the Panama Canal is finished, it will be absolutely necessary to have under our control a comprehensive line of steamers to the Far East and, in fact, all of the new Pacific ports that the canal will make available, and that these steamers should be ready and equipped for a comprehensive passenger and express freight service outside of and above the matter of bulk cargoes. It is the small shipper with his precious cargo that builds up material wealth, and if we can get them interested in shipping the result of the brain and capital invested in their manufacturing industries, we realize that we will do more for the South and the Mississippi Valley than in the mere handling of bulk cargoes of raw material.

After the convention adjourned I became very diligent in looking up the possibilities of the organization and equipment of such a line of steamers as the resolutions called for. There was not one person with whom I came in contact who could say aught against the advisability of such an undertaking, but at the same time they universally cautioned and warned me against the practicability of the scheme, because the American flag was the prerequisite. A thorough investigation into this matter, covering a period of several months, has opened my eyes to a condition of things that is, to say the least, startling.

Immediately after the adjournment the matter was taken up by those most interested, and particularly in Chicago, where the greatest enthusiasm was manifested for the establishment of such a line in the development of the foreign trade. It looked at one time as if we would have very little difficulty in accomplishing the object in view, but we ran against the advice of those who had been in the shipping business, and they explained to us the impossibility of operating under the American laws, because of the wonderfully increased cost of American construction and operation.

Shortly after this convention we saw where your Commission had been appointed, and in that the people of the Mississippi Valley and the South saw a prospect for relief. We have long realized that a tramp service in and out of New Orleans does not build up the interests of this port. Tramp service is frequently occasioned or brought to pass by people whose interests are not our interests, or are not identical with ours or identical with those of the Mississippi Valley, but is occasioned because of the fact of the clemency of the weather

or the cheapness of the facilities of the port as against New York or some other port on the Atlantic seaboard.

We in this city and in the valley and in the South realize that the development which will produce the greatest wealth to us will be, perhaps, in the small shipments of precious cargo, if there can be some way found by which it can be built up and if there can be some medium of shipment, through friendly lines or channels, which can cooperate and work hand in hand with our superb consular service abroad.

NEW ORLEANS-JAPAN STEAMSHIP LINE.

The Japanese consul in Chicago, hearing of what we had in contemplation, visited us, and asked for data along those lines, and stated that they had in contemplation a Japanese line of steamers through the canal to the port of New Orleans, unless we of the Mississippi Valley did something toward helping ourselves. It is, therefore, with the greatest hope that we look to this Commission, in its wisdom, to do something that will relieve the situation and build up this port and build up that which the Government is spending millions for at one of the finest ports in the country.

I am sure you gentlemen of the Commission who went up and down the river yesterday were more than surprised, and I am confident you could not have been gratified over the fact that there was not over the stern of any steamer along the wharves the American flag, unless she was engaged strictly in the coasting trade.

COMMERCIAL STATISTICS.

In order to give you a comprehensive idea of what we feel are the possibilities of New Orleans because of its geographical location and because of the navigable rivers that touch all the metropolises in the Central West, in the Mississippi Valley and in the South, I should like to give you some statistics. They have been compiled from the Journal of Commerce and from other reliable sources, and I take it for granted that these figures are approximately correct.

During the last eight years our national wealth has increased from \$70,000,000,000 to \$100,000,000,000, an increase of \$30,000,000,000, or 43 per cent.

During the same period our exports have increased from \$882,000,000 to \$1,420,000,000, an increase of \$538,000,000, or 61 per cent.

During the same period our imports have increased from \$779,000,000 to \$1,025,000,000, an increase of \$246,000,000, or 31 per cent.

For this period our total foreign commerce has increased from \$1,661,000,000 to \$2,445,000,000, an increase of \$884,000,000, or 53 per cent.

During this time our gold production has increased from \$53,000,000 to \$74,000,000, an increase of \$21,000,000, or 40 per cent.

For this period our exports were in excess of our imports \$3,513,000,000, or \$941,000,000 more than the increased deposits in its national and savings banks, and over \$500,000,000 more than three times our public debt.

During this time we increased our freight earnings by the railroads of our country 75 per cent and the passenger traffic 23 per cent.

During the last five years our sales to the Philippines have increased from practically nothing to \$5,000,000 yearly.

During the last five years the Porto Rico exports increased from \$9,000,000 silver to \$14,420,000 gold.

During the last five years the exportation of our products to the Hawaiian Islands has increased from \$3,985,000 to \$10,787,000 yearly.

During the last eight years we have increased exports to Cuba from \$7,530,000 to \$21,761,000 yearly.

During this time our imports from Cuba have increased from \$40,000,000 to \$63,000,000 yearly.

During this period we have increased our exports of domestic manufactures from \$228,000,000 to \$407,000,000, an increase of \$179,000,000 yearly.

Between 1896 and 1903 we have increased American tonnage engaged in commerce on the Great Lakes from 1,324,000 to 1,902,000 tons, an increase of 578,000 tons yearly; American tonnage passing through the Sault Ste. Marie Canal from 17,249,000 to 27,736,000 tons, an increase of 10,487,000 tons; American tonnage engaged in domestic trade from 3,858,000 to 5,198,000 tons, an increase of 1,340,000 tons; American tonnage built (practically all domestic) from 227,000 to 436,000 tons, an increase of 209,000 tons.

These wonderful statistics are beyond comprehension practically by everybody, and especially to those who have not given thought to the last few years' wonderful development of our every material interest.

GEOGRAPHICAL CENTERS OF ACTIVITY.

The World's Work for November, 1904, page 5487, gives a map entitled the "Geographical centers of activity." This map shows the center of population to be in the southern center of Indiana; the center of manufactures close to the western State line and in the southern part of Indiana; the center of farm values in the western central part of Illinois; the center of total area of farms the southern center of Missouri; the center of corn in eastern Iowa, and the center of wheat in the western part of that State. The center of wealth by other statisticians has been fixed in central Ohio. This map shows that from decade to decade the drift of all of the above is gradually westward along practically parallel lines.

NEW ORLEANS.

We have practically 30,000 miles of navigable waterway that reaches all of these centers of wealth; our north and south railroad lines terminating in New Orleans all tap this prolific country. We in the South contribute largely toward making these centers. In view of the wonderful percentage of growth during the last few years in every avenue of this country's development, and in view of our natural geographic position, coupled with the further fact that we are the port of the country when climate and natural condition and proximity to the Panama Canal is considered, is there any wonder that our board of trade got busy early in the effort to organize some means of communication that would mean the development of all interests, whether large or small, along the best lines of growth? [Applause.]

THE STEAMSHIP "MISSISSIPPI."

As a matter of digression, I will say that early in January I saw by a Sunday morning paper the announcement that the *Mississippi*, an American steamer, was near the Leyland Line wharf, and the newspaper expressed gratification over the fact that that American boat was here to load cotton for Liverpool. I took my little boy early in the morning to see this gigantic steamer, built in Camden, N. J., opposite Philadelphia, and I want to express to you now the conditions as I found them. I saw a regular Mardi Gras crowd around that steamer, named after the Father of Waters, and loading with a cargo from the Mississippi Valley to be carried abroad.

There were French and German and English steamers all along the wharves, and not a soul near them. The wonderful sight of an American boat in an American river loading with American products, bound abroad, excited the curiosity of almost everybody who happened to read that Sunday morning paper. [Applause.] It was a living example of what we require more than any illustration I have ever had brought directly to my attention.

REQUIREMENTS OF NEW ORLEANS.

Your Commission, as I understand it, are authorized and have listened to the actual requirements or necessities as viewed from every seaport, regardless of its geographical location. I, therefore, will now state what we consider, as I understand them, our requirements. There is no use in talking about trying to build up this port or any other seaport by the means of a tramp steamship service. We know what it is for a long time to furnish the facilities for others to take advantage of just when the opportunities are ripe, and at other times to absolutely neglect everything that does not show a direct and immediate profit. Steamers that are chartered by those at a distance and are sent here to be loaded with cargoes simply because it is more economical, or climatic conditions make it more advisable, do not materially add to our upbuilding. We do not believe that our best interests can be handled and developed by those whose interests are not identical with ours. We do not believe that an open port offering the facilities which ours offers should be free to every other nation or flag to the exclusion of ours.

FOREIGN CARRYING TRADE.

According to the testimony that you have taken in other places from those who are best able to speak, we learn conclusively that it costs 25 per cent more at least to build an American ship than if constructed abroad, and at least 30 per cent more to operate it after it is built. It would seem to us manifestly unfair in view of these conditions that we should pay to foreign freight carriers over \$200,000,000 per year in the way of freight earnings, with their cheap ships and cheap crews, to the entire exclusion of our own.

TRAMP STEAMERS.

I wish to call your attention to the effort to build up this port by means of tramp steamers. In other words, I desire to dwell a little more at length on that particular feature. We have extensive elevator capacity here, and these elevators are supplied by all the large roads tapping the wheat center of the United States. We have superb facilities for handling cargo to all the points south of us. We have only the opportunity, however, to move our cargo at such times as it can be moved by foreign shipowners, when it suits their purpose, and when there is an apparent large margin of profit in the transaction.

I speak particularly of the tramp steamers. There are representatives in this room of steamship lines, and I do not want my remarks to be applied to the regular lines, for I am speaking of the tramp service. The steamers which move in and out of this port should be under our control, and should be maintained twelve months in the year to seek new channels of trade and to hold on to that which we get in propitious times, even though in unpropitious times they might lose money. No merchant in New Orleans or any other business center simply does business when he is making a profit. He does business twelve months in the year, whether he is making a profit or not. He is not prepared to go out of business because conditions are not propitious for the time being. But that is the actual condition on the river front. Every member of the board of trade who has kept in touch with the moving tonnage in and out of this port knows this, and it is a condition we should like to have cured.

UPBUILDING OF AMERICAN SHIPPING.

We had the honor of having Secretary Shaw here as our invited guest at a banquet on the floor of this exchange, and his whole theme that evening was the upbuilding of American shipping. He said he believed in protection to American ships that sought new avenues of trade, and that if we had such facilities at our command South America would not be as far away from us as the Philippines, practically speaking. [Applause.]

We have no direct communication that means the development of any trade. We have no direct communication even with the island of Cuba that means the upbuilding of our interests in Cuba. We have a steamer touching simply at the port of Habana, while New York enjoys steamers that go there from the upper and the lower side of Cuba, and New York merchants can ship from New York to any part of the island, while we are entirely shut out, except at one port, and the rehandling charges at the port of Habana for transshipment to the point of destination in Cuba are so excessive that it absolutely shuts us out.

IMPORTATION OF COFFEE.

We are the second port in the importation of coffee. It is brought here entirely by foreign steamers, and they never go back except by way of the home port to South America, and then up to New Orleans. So, while we are handling the coffee and the mere handling charge remains in New Orleans we are not developing the trade. It seems to us where we buy so heavily we should be able to send our products

back. It would seem to me, in the handling of our own, that we should not invite cargo after cargo to come from those southern countries and give them nothing in return. That is one of the things we desire to avoid, and by every effort in our power we must avoid it, but we never can do it through the means of tramp steamers.

CHARTERED STEAMSHIPS.

I was manager of a steamship line for years. There is not a man who has ever handled chartered steamers who will not tell you that you are handicapped at the start. There is no kindred line of spirit between the merchant and the man who has the charter party locked up in the steamer. He absolutely studies the charter party and has it by heart.

There is no give-and-take in that contract. There is nothing in the whole arrangement, on the part of the master, but an absolute fidelity to and standing by the interest of his owner, who lives anywhere from 5,000 to 7,000 miles from the steamer's point of call. Do you mean to tell me that we Americans can build up and foster industries at home to the extent of the great aggregate of wealth to which I have called your attention, and must then rely on a foreign ship under a foreign flag to carry our products for us? If so, we are impotent. I do not believe we are impotent, and I believe your Commission, when it shall have concluded its labors, will recommend a bill that will mean relief from this condition.

ARGUMENT FOR AMERICAN SHIPS.

There is another point. There is a lack of comprehensive knowledge on the part of the people in the interior of the country, who think that if steamship lines are aided in any manner, shape, or form, it is done to their detriment. There is nothing further from a sound argument, because when as a boy I can remember that there was not a farm in Kansas which had not a mortgage on it, and I now see from the papers that the people of Kansas have over \$200,000,000 in their savings banks. What did that? It was not home consumption. It was the fact that they have these grand outlets and these ports and facilities to send their products to the remote parts of the world.

We pay to foreign freight carriers every year an aggregate of \$200,000,000 in the way of freight earnings, with their cheap ships and cheap crews, to the entire exclusion practically of our own.

GOVERNMENT AID TO SHIPPING.

Up to September 19, 1900, one of your Commission [Mr. Minor] has given figures of \$370,411,000 as the outlay for the construction of harbors. Since then over \$60,000,000 has been spent. In addition to this we have been for years and are maintaining a most efficient light-house service, life-saving stations, light-house vessels, buoys, etc., amounting to over \$100,000,000 more. According to figures before your committee we are getting in return for this the handling of less than 8 per cent of the imports and exports, and others, with their cheaper facilities, are getting 92 per cent.

France gives a building bounty and a mileage subsidy of about 3.20 cents per ton per 100 miles sailed, which practically covers operating expenses. The testimony is there showing where French steamers have called at San Francisco and have come around the Horn and come to the eastern seaboard for cargo in ballast, and practically made their expenses by the subsidy the French Government gives. And yet, on the other hand, you will hear people argue that, notwithstanding that was done, notwithstanding the fact that the English Government is giving subsidies, and notwithstanding various indirect aids by other nations to their shipping, we should not do anything to help our own.

MIDDLEMEN.

I can naturally appreciate the argument on the part of those representing foreign ships, because they have a large amount invested, but we are so self-contained at home that it is necessary for us to become rivals in foreign shipping. The day of the middleman is gone. It is becoming less and less every day at home, and it is becoming even less and less and more less abroad, and the time is coming when you or I engaged in an industry that sends the result of our brain and brawn abroad, will see to it that it goes in channels which we can control and manipulate, and not through the uncertainty of charter parties and charter hire.

The building abroad of ocean steamers, even to the length of a mile, almost, and cutting them off to suit, as has been testified to before your commission, taking advantage of 30 per cent less in cost of construction and 30 per cent less in cost of operation, and putting us between the upper and the nether millstones and grinding the life out of us, is manifestly unfair to every American.

PROTECTION TO AMERICAN SHIPPING.

Now, I submit in view of all the above, that relief for our shipping along proper lines of protection is necessary, and it is for you in your wisdom, and as the result of this investigation, to recommend to Congress the best means by which this can be properly done. I am not prepared to say whether I most favor a construction and operation subsidy or a subsidy in the way of discriminating duties.

This I do know, however, that with the fact established that we can supply the world's demands, and with railroad facilities the peer of any to bring these products to the seaboard, we should not be put in the position of having to seek foreign owners and foreign bottoms to carry our products abroad. We are too proud a people and too thoroughly imbued with the idea of upbuilding our own to longer stand it.

SECRETARY SHAW'S SPEECH.

In this connection I desire to quote from a speech made by Secretary Shaw at a meeting of the National Association of Merchants and Travelers held in Chicago on the 2d of September, 1903:

"If we ever secure the trade of the countries to which I have referred (South America), we will first secure regular lines of communication with those countries, and if we ever secure these lines assistance must be offered.

"Do not misunderstand me. I am not mourning the defeat of any ship-subsidy bill, but I shall mourn exceedingly the defeat of a bill, if any such shall ever be introduced, which, if enacted, would insure regular lines of American ships, flying the American flag and carrying American merchants and commercial travelers with their wares and merchandise, the product of American labor, into those countries to which I have referred. Such a bill must offer special advantages to ships plying between our ports and countries where our trade is undeveloped."

When Secretary Shaw was the guest of this board of trade at a banquet held on the floor of the exchange last year, he gave utterance to the same sentiment, and then stated that any American citizen, with that pride which is our natural heritage, could not but blush at the fact that foreign aid has to be sought to carry to foreign countries the result of our brain and brawn. I say God speed the day when his sentiments, which are my sentiments and I believe the sentiments of every other true American, can be carried to full fruition. [Applause.]

It is the aim of this board of trade to equip, through the aid of other commercial exchanges and kindred interests in the Mississippi Valley and the South, a line of steamers, as per the resolution read, providing you recommend to Congress and they enact a law that will put the American flag in a position to compete, commercially speaking, with the flags of other nations. It would seem as though it is but common justice that you, our legislators, should help us as merchants, manufacturers, importers, and exporters to hold our own, to control our trade, and to develop all new markets.

THE MISSISSIPPI VALLEY AND THE PANAMA CANAL.

In these modern days every great event is celebrated by an exposition. Everything that transpires is, after the lapse of a certain time, so celebrated. We of the Mississippi Valley want to celebrate the opening of the Panama Canal by a different sort of exposition. We want to have American ships, built in American yards by American labor, manned by Americans, knocking at the doors of Colon, and the very moment the canal is opened for traffic we want the preemption, and we want to claim it early, to send our boats, loaded with the products of the Mississippi Valley, through that canal around to the points of the Far East and knock at their doors and bid them good day.

The canal is ours without entangling alliances. When the gate is opened to us and the war in the East is over and peace once more reigns, we shall have an outlet for the products of the farm and the factory. We will have a canal lock, stock and barrel, built by the American people, under the laws of the United States. As it is now, when it shall no longer serve the purpose of the foreigners, when they see our wonderful growth, they can so handle their merchant marine as to drive us from the high seas because we have no means to protect ourselves. They are developing Africa; they are developing the most remote parts of the world, and they are getting ready to meet new conditions.

Let us get ready now, and by the time we have a competent marine fleet, and by the time they come into the markets with cotton from the new fields of Africa and Egypt, we will be able to meet them and to cope with them and to beat them. We always have beaten them

and we always will. There is no spirit of vindictiveness in what I say. It is simply the claim of an American who is anxious to see the preeminence to which we have climbed at home attained abroad. [Applause.]

SOUTH AMERICAN TRADE.

In my younger days I was in the consular service. I know the disadvantages under which Americans labor abroad. It is impossible for us to upbuild our interests; it is impossible for us to use the ports of South America, however great buyers they may become, unless you give us the opportunity to send ships that we own and control, and where the owner, and the captain, and the crew, and the shipper, and the consignee are all of kindred interest. When you have done that you will have accomplished a wonderful work. [Applause.]

I thank you, gentlemen.

At 12 o'clock the subcommission took a recess until 1.30 o'clock p. m.

AFTER RECESS.

STATEMENT OF JAMES W. PORCH—Resumed.

Senator MARTIN. I wish to ask Mr. Porch a question. I listened with a great deal of interest to your remarks, Mr. Porch, but I note that you do not give any expression of opinion as to the remedy, if any, which commends itself to your judgment. I should like to know what you have to suggest as a remedy for the trouble which we all realize confronts us. If you have given any attention to that point, we shall be glad to have your suggestions.

You know there has been talk about what we call free ships; there is the direct general subsidy; there is the discriminating duty; there is the special contract for carrying the mail over a given route. Quite a number of propositions have been discussed, and all are attended with more or less difficulty, and as you seem to have given a great deal of thought to this matter, we shall be very glad to have any suggestion as to what you think the best remedy for this trouble.

THE REMEDY.

Mr. PORCH. Mr. Chairman, from my point of view a remedy that will mean the ability to develop trade which heretofore has not been properly developed, rather than some method of benefiting already established lines, should be selected. I believe that well-developed steamship lines, plying for instance between New York and Europe, are in a better position to fight the fight and to carry on almost any sort of a competitive service. But we should have new ships for new trade, for development along the line of our nearest foreign ports, as for instance in South America.

DISCRIMINATING DUTIES.

Now, whether that could be done best by a cash subsidy or whether in the way of discriminating duties, I, of course, have not given that thought to it which would enable me to speak authoritatively. But from what I have observed and from the testimony you have taken,

and the consensus of opinion as far as the investigation has gone, I am inclined to lean toward discriminating duties. Discriminating duties will enable us, perhaps, to build up a reciprocal trade, and, while I realize that discriminating duties will for a time militate against New Orleans as compared with a port where they have more imports than exports, yet it will be up to us to divert that trade and bring it in here, so as to get the benefit of the reduced duties.

MAIL SUBVENTIONS.

The extension of mail subventions would be another means in conjunction with discriminating duties to bring us to the end sought. A cash subsidy or any other method of paying for the building up of American shipping on the high seas, which has any tendency or possibility to be coralled or controlled by powerful corporations, to the detriment of the small, struggling lines that would enter into this trade when you offer the aid, should be guarded against. It was not very long ago when we saw the announcement that Governor Odell would perhaps be made president of the Pacific Mail.

Now, from our point of view, and that is the only point from which I want to argue this matter—that is, from a southern port's point of view—we do not want to see such aid given to a large steamship line which can be manipulated and controlled in conjunction with trunk railroads. It is our idea that the steamship business should be separate and apart from the railroad business, and the steamship company should be so thoroughly equipped and prepared to do business as to seek tonnage at the end of the ship's hawser as well as to seek tonnage at the most accessible place.

TERMINALS.

We here have often contended that the terminals at the end of a railroad line at a seaport should belong to steamship companies rather than to the railroads, in order that the steamship companies could be absolutely untrammelled in the handling of their business and be under obligations to no company which has a greater interest apart from the mere transportation by water, and that is the rail haul. We want it so that in seeking this new trade the steamship line will start out independent of its railroad connection or any other connection, and will run and endeavor to build up the business on the basis of the merits of the enterprise itself, and remove the discriminations which exist between the cost of construction and operation of our ships and that of ships of other countries. It is my opinion that that can be better done and better handled, and perhaps cause less friction with existing treaties, by some method other than that of a cash subsidy.

INDIRECT TRADE.

The point I would raise, perhaps, would be that an English steamer, for instance, operating from England or England's possessions to this country, should not in a measure be discriminated against to the same extent as if the same steamer from the same country, owned and controlled across the water, came here to trade with countries remote and

distinct from England's possessions. If we can so control it, and do it by means of a discriminating duty—and it rather occurs to me it can be done and would be the solution of the question I believe we would accomplish the purpose for which you are seeking

OUTGOING CARGOES.

Senator MALLORY. Have you thought at all of any scheme by which, if we should adopt the discriminating-duty plan, we could provide our ships with cargoes going out from the United States? Of course we could control the matter of bringing imports here, probably, but how would we get a back cargo unless it was that foreign ships could not afford to come to this country in ballast simply to get a cargo going back. They can afford to do it now.

Mr. PORCH. That is true; but in order to make it operative in the full sense it requires some civic pride. It requires on the part of shippers some desire to help the flag. If they will discriminate and tightly close up their purses and stand on a matter of a mere bagatelle of difference and do everything to thwart the efforts you are making, it may fail. But I believe with a proper shipping act, designed to stimulate interest in what we are trying to accomplish, they will aid us, and I believe the enterprise of the shipping companies would naturally lead them to seek a cargo going abroad even at a disadvantage, so as to come back with a cargo that would give them the advantage.

It seems to me that from the point of production to the point of consumption this can be assimilated to an electric current. We want no break. We want no discrimination. We want no delays or friction. We want to do this trade along the line of least friction, and that can only be upon a line of kindred interest from the time you start until you finish. I think a discriminating duty will help us to that end.

TONNAGE DUTIES.

Senator MALLORY. Have you thought of what discrimination we should make in our duty on goods imported from foreign countries?

Mr. PORCH. I can speak only from the reports I have seen on that subject. In the American Economist, one of the clauses of the bill proposed—and it seems to me to be pretty fitting—reads as follows:

“That a duty of \$1.25 per ton on the gross admeasurement, in addition to the regular duty imposed on tonnage by law, shall be levied and collected from every vessel not of the United States that shall arrive with merchandise, passengers, or mail, to be landed in the United States from a country, its colonies or possessions, to which the said vessel does not belong, until the 1st day of January, A. D. 1909, at which date the duty aforesaid shall be at the rate of \$2 per ton of gross admeasurement.”

Senator MALLORY. That is a tonnage duty, pure and simple.

Mr. PORCH. Purely and simply a tonnage duty of \$1.25 on the foreign ship until 1909, and \$2 per ton thereafter.

Senator MALLORY. We are much obliged to you for your statement.

STATEMENT OF C. H. ELLIS.

C. H. Ellis appeared before the subcommission.

Senator MARTIN. Mr. Ellis, in what business are you engaged?

Mr. ELLIS. I am the representative in this port of the United Fruit Company.

Since learning of this meeting, through the courtesy of Senator Mallory, who wrote me from Florida, I have given this question a great deal of thought and have gone into some facts and figures. I do not wish anyone to think I am a little forward in advancing some suggestions.

Senator MALLORY. That is what we want.

Mr. ELLIS. But being largely interested in this matter, having had actual experience in it, I am going to be a little forward.

Having been requested to appear before you for the purpose of giving my views looking toward a revival of our merchant marine, and having been appointed on the board of trade committee to be present at a meeting to be held to-day, I herewith submit the following:

UNDER MANY FLAGS.

Our company are the charterers and owners of a very large fleet of vessels, consisting of vessels under the Norwegian, the Swedish, German, English, and American flags. Our company was organized in the year 1899, and at that time we had quite a few American steamers in our employ, most of which we owned outright, but the cost of operating them as compared to foreign vessels was so much more that we have in a measure been compelled to abandon them altogether and use instead vessels of the Norwegian, Swedish, and German flags. The Norwegian vessel is by far the most economical to operate, and next comes the Swedish, then the German, then the English. The difference in the cost of operating the American and Norwegian vessels consists principally in the wages paid to the crew, the food scale, and the number of men required to operate a Norwegian vessel of the same size as an American ship. Our experience has shown us that we can operate a Norwegian vessel for about 30 per cent less than we can an American vessel, which is an item of considerable importance in our business.

TEMPORARY FREE SHIPS.

The ways and means to bring about a revival of our merchant marine and enable us to handle American steamers at or near the cost of foreign vessels require very careful consideration, and may vary with the demands of local conditions at the various ports. My plan, as far as the port of New Orleans is concerned, would be to at first allow the owners or charterers of all foreign vessels, who are American citizens, to transfer those vessels to the American flag, giving them five years' time in which to do so; this permission, however, not to cover any future charters or purchases made after the present time. In addition to this, it would be necessary, in my opinion, to only man these vessels with American citizens, in so far as the officers are concerned, allowing the shipowners to engage the sailors and firemen and such other part of the crew who are not officers, who are of any nationality.

Senator MALLORY. You can do that now.

Mr. ELLIS. What is that?

Senator MALLORY. There is no law prohibiting you from employing foreigners as seamen.

Mr. ELLIS. No; there is no law, except in the engineering department, and while I was giving my views, I included the whole thing.

I make this statement for the reason that I do not consider that we have sufficient seamen to man vessels; furthermore, they require better wages and would demand more pay if American ships were confined strictly to the employment of American citizens.

The local unions of the port are a great drawback to our shipping interest, and we have been compelled even to divert some of our English vessels to eastern ports on account of the high wages demanded here by the various unions.

SUBSIDY RATHER THAN DUTY.

I would not favor the taxation of foreign bottoms for the benefit of American vessels, as it would, in my opinion, be detrimental to our foreign commerce; but in order to offset the difference in the cost of operating an American ship and a foreign vessel, after we have been allowed to engage the majority of the crew consisting of any nationality, I think it should be determined what amount of subsidy would then be necessary to in a measure offset this, and then the remedy should be applied.

In regard to the building of American vessels I see no reason why our American shipyards can not compete with any foreign shipyard, provided they have the volume of business to handle. I am in a position to say that the American-built ships are superior in construction to any ships in the world excepting possibly the English-built vessels, and the modern American ship is, in my opinion, of a better finish than even the English vessel.

I wish to add before closing that all American steamers now receive a larger compensation from the Government for carrying mails than foreign steamers, and in many instances they enjoy mail contracts, which of course is an advantage to be gained by operating them.

The first thing we have to contend with in reviving our merchant marine is the subsidies paid foreign vessels by foreign governments. For instance, the Republic of France grants subsidies; so does the Austrian Government. We have to contend against those in addition to the additional cost of operation.

Senator MARTIN. Still those countries are not our formidable competitors.

Mr. ELLIS. England is our most formidable competitor, and Norway.

Senator MARTIN. Norway gives no subsidy.

Senator MALLORY. Neither England nor Norway, practically, because the subsidy England does give is what is called an admiralty subsidy.

Mr. ELLIS. The English allow their mail steamers very large subventions.

Senator MALLORY. But the fact is that the English merchant marine does the transporting of the better part of the commerce of the world, and practically that marine which consists principally of so-called tramp ships gets no assistance.

A NUCLEUS AT ONCE.

Mr. ELLIS. There may be some objection urged to allowing American citizens, who now own or charter foreign ships, to transfer them to the American flag, on the ground that we have plenty of money here to build up our merchant marine. But in doing that we would accomplish two purposes. We would form a nucleus at once for the upbuilding of the merchant marine, and we would cripple the foreigner, because we would take those ships away from him. There is no doubt about that.

Senator MALLORY. Could you state about what you paid your chief engineers and mates on vessels under the American flag engaged in the trade between here and Central America?

Mr. ELLIS. The captains got \$150 a month.

Senator MALLORY. Under the American flag?

Mr. ELLIS. Yes, sir. We do not operate any American vessels here now, but I give you the wages we paid when we did operate them.

Senator MALLORY. Very well.

Mr. ELLIS. We paid captains \$150; engineers, \$135. On Norwegian vessels similar to that the captains would receive about \$110, and the engineers about \$100. The Norwegians pay their engineers very well, and in some instances pay them more than the captains.

• GENEROUS FOOD SUPPLIES.

Senator MALLORY. How about the food supply of the men; is there any difference in that respect?

Mr. ELLIS. Oh, yes, a great deal of difference, in that the food supplied the American seamen is far above the average of that on any other ship. There is no doubt about that.

Mr. WOODWARD. With your permission, gentlemen, I should like to ask a question.

Senator MARTIN. We shall be very glad to have you do so.

Mr. WOODWARD. In the charter they include the victualing?

Mr. ELLIS. Yes; but having dealt with them for eight or ten years I know what they get. I have traveled on American, English, Norwegian, and German ships.

Mr. WOODWARD. How about the wages?

Mr. ELLIS. The American seaman gets about \$30 out of this port to about \$18 for the Norwegian.

Senator MALLORY. Why is that?

Mr. ELLIS. We here are dependent entirely on the unions for labor, whereas the Norwegians generally bring their crews out with them, contracted for a period of two years, and they generally stay with them. Occasionally one or two of their crew may desert, and the master will replace them with scab labor or anyone he may pick up.

Mr. WOODWARD. Are other ports on the same basis?

Mr. ELLIS. Yes, sir.

Senator MALLORY. When the Norwegians reship here, they have to pay the prevailing rate of wages?

Mr. ELLIS. No, sir.

Senator MALLORY. Does the flag make a difference?

Mr. ELLIS. Yes, sir; they are not dependent on the unions for labor, and we are.

Mr. WOODWARD. In Boston and in New York are the wages on the same ratio?

Mr. ELLIS. In Boston and New York there is not such a great ratio of European as in New Orleans.

Senator MALLORY. On what size vessel did you pay the master \$150 a month?

Mr. ELLIS. Fifteen hundred tons gross register.

Senator MALLORY. Most of your vessels are between a thousand and fifteen hundred tons?

Mr. ELLIS. We run from 1,000 to 2,500 tons. We have about 93 in our employ, either owned or chartered, some of them for long periods, some of them for short periods.

Representative SPIGHT. Mostly sail or steam?

Mr. ELLIS. All steam.

ONLY SEVEN AMERICANS.

Mr. WOODWARD. How many American ships have you?

Mr. ELLIS. We now have seven American steamers. They are all operated in the East.

Senator MALLORY. Under what flag?

Mr. ELLIS. Under the American flag. We have nine; I beg pardon.

Senator MARTIN. Nine under the American flag?

Mr. ELLIS. Yes, 9 under the American flag.

Senator MARTIN. How many Norwegian vessels have you?

Mr. ELLIS. I should say about 60.

Senator MALLORY. Sixty?

Mr. ELLIS. Sixty.

Mr. WOODWARD. Not all under the Norwegian flag?

Mr. ELLIS. All under the Norwegian flag; and we have about 10 or 12 under the German flag, and probably 7 or 8 under the English flag. I have not the figures here right now, and that is as near as I can remember; it is something in that proportion.

Senator MALLORY. I understand that you make the statement that on the vessels run by your concern under the American flag the cost of operation is some thirty per cent greater than for vessels of a similar character run under the Norwegian flag.

NORWEGIANS CHEAPEST.

Mr. ELLIS. Yes, sir. Our business does not exact American tonnage. We operate to foreign ports. We cover Central America from Yucatan to Panama. We are not required to operate American vessels. The demands of the business have simply necessitated doing away with them and using the Norwegian type of ship. We have hauled every pound of goods out of New Orleans for the Panama Canal, and we do it in Norwegian vessels. We could not do it at all with American ships. That is the way we have secured the business for the port of New Orleans. We are taking it out of here by reason of the fact that we have Norwegian vessels.

Senator MARTIN. You say you have taken all the supplies for the canal that have gone from here?

Mr. ELLIS. Yes, sir; every pound of them. We have taken down over 5,000,000 feet of material for them. We have two ships sailing this week, heavily laden, for Panama.

Senator MARTIN. Did you do that in competition with other lines?

Mr. ELLIS. Yes, sir; we did it in competitive bidding.

Senator MARTIN. With American ships you could not have competed?

Mr. ELLIS. No, sir; we could not have competed. The cost of operation is too great.

Representative SPIGHT. In view of the cost of operation of American ships, why do you not put your ships under foreign flags?

Mr. ELLIS. Most of them are.

Representative SPIGHT. You said you had nine under the American flag?

Mr. ELLIS. They are mostly under mail contracts, and in that way we in a measure offset the difference. We have reduced it as low as possible.

Senator MARTIN. Were there other American competitors for that work?

Mr. ELLIS. Some were and some were not.

Senator MARTIN. There were some other Americans who competed?

Mr. ELLIS. Yes, sir.

Senator MARTIN. Suppose it had been limited to American vessels, would there have been enough American vessels to do the work?

Mr. ELLIS. No, sir. There are enough American sailing vessels, but we even took the material at a lower rate than they could name profitably. Of that there is no doubt in my mind.

These are my ideas from actual experience. Of course, my ideas are not the ideas of everybody.

THE TRADE TO PANAMA.

Senator MARTIN. Do you think if we had been dependent upon our own bottoms we could not have carried that material to Panama with proper dispatch?

Mr. ELLIS. No, sir; we could not. We have not the ships.

Mr. JAMES E. FLYNN. Will Mr. Ellis yield for a question in reference to this matter?

Senator MARTIN. Will it inconvenience you, Mr. Ellis, to yield to a question?

Mr. ELLIS. Not at all.

Senator MARTIN. Mr. Flynn, you may proceed.

Mr. FLYNN. I understand you to say there was no competition for the Colon trade. Is it not a fact that the New York and Porto Rico Steamship Line—

Mr. ELLIS. No, I did not say there was no competition. I said that there was competition.

Mr. FLYNN. There was competition?

Mr. ELLIS. Oh, yes.

Mr. FLYNN. The New York and Porto Rico Line is an American line?

Mr. ELLIS. Yes, sir; it is. They competed for it.

Mr. FLYNN. They have bottoms enough to carry all the trade out of this port in competition with your company?

Mr. ELLIS. No; they have not.

Mr. FLYNN. They would be able to get it in the event they could get proper rates?

Mr. ELLIS. I suppose they could.

Senator MALLORY. You say you think it is impossible for American vessels to compete with Norwegian and Swedish vessels in the foreign trade?

Mr. ELLIS. It is absolutely impossible.

WOULD PREFER AMERICAN VESSELS.

I know, so far as our company are concerned, that we should like to operate American vessels. They give better satisfaction. There is better discipline on them. The ships have better officers. The officers are more intelligent, and in every respect they are more satisfactory; but a difference of 30 per cent in cost means a great deal to us.

Senator MARTIN. What would be the effect, in the way of building up American lines, if all the material necessary for the Panama Canal, going from this country, was required to be taken in American bottoms?

Mr. ELLIS. I think they have not sufficient tonnage for the present to take it.

Senator MARTIN. Do you not think there would very soon be sufficient, provided the vessels could be brought from the coastwise trade?

Mr. ELLIS. Yes, sir.

Senator MARTIN. There would surely be plenty of vessels in this country to do that little work——

Mr. ELLIS. In that event.

Senator MARTIN. If it were provided merely that they should be American-built vessels?

Mr. ELLIS. American-built vessels.

Senator MARTIN. And sailing under the American flag?

Mr. ELLIS. Yes, sir.

Senator MARTIN. Suppose the law required all the supplies and materials to be used in the construction of the Panama Canal to be transported on American-built vessels, sailing under the American flag. The construction of the canal will take a good many years. What would be the effect on American lines of such legislation?

Mr. ELLIS. To Panama?

Senator MARTIN. And contiguous countries.

Mr. ELLIS. There is no doubt about it that through necessity they would be bound to establish lines to Panama, but I hardly see how the Commission could conscientiously pay those boats the rates they would demand.

Senator MARTIN. The Commission could not do it unless it was required by law.

Mr. ELLIS. It would simply mean that the material would cost the Commission a great deal more delivered there than otherwise. They could, through necessity, establish the lines all right.

Senator MALLORY. Do you not think we now have vessels enough under the American flag to transport all the material that will be transported annually to Panama?

Mr. ELLIS. No, sir; I do not think so.

VESSELS IDLE AT NEW YORK.

Senator MALLORY. There are a large number of vessels lying idle in New York, laid up.

Mr. ELLIS. I do not think there are any desirable American ships lying idle. I know the Southern Pacific Company has been in a quandary—

Senator MARTIN. How long would it take to build such ships as are best adapted to that trade?

Mr. ELLIS. Twelve to eighteen months to build ships for that trade under the most favorable conditions.

Representative SPIGHT. I understand you to say that if such material were required to be transported to Panama on American vessels only it would increase materially the cost of transportation?

Mr. ELLIS. It would, to give anything like good returns to the ship.

Senator MARTIN. Is the cost of transportation to Panama materially greater than the cost of transportation for like distances in our coast-wise trade?

Mr. ELLIS. The cost of transportation is not any greater, but the facilities for discharging at that port render it very difficult to handle material at a profitable rate.

Senator MARTIN. Do you think it could be carried to Panama in American vessels as cheaply as similar material may be transported along our coasts?

Mr. ELLIS. Without doubt.

Senator MARTIN. Without doubt you say it could be?

Mr. ELLIS. Yes, sir; it could be.

Senator MARTIN. The cost to the Government, if we limited the transportation to American bottoms, would not be greater—

Mr. ELLIS. No; of course not.

Senator MARTIN. Than the cost of like work between different ports in our own country?

Mr. ELLIS. Not at all.

Senator MARTIN. Or than if the Government had to transport the same material between ports in our own country?

Mr. ELLIS. Not at all. It would be about the same.

Representative SPIGHT. Do you think American vessels would take advantage of the fact that goods were required to be taken alone in American vessels to run up the price?

Mr. ELLIS. I do not think that, but I do not think there are enough American vessels in existence now to handle the material necessary in the construction of the canal. Of course, if such a law were passed, the steamship lines would begin the construction of American vessels. But as I said, the material there would without a doubt cost more if you eliminated foreign competition.

In regard to our American shipyards, I must say they build fine ships. There are no finer ships in the world than those built by the Cramps for the Southern Pacific Company. If we could only get steel for the same price at which they get it in Belfast, we could handle it all right.

STATEMENT OF W. P. ROSS.

W. P. Ross appeared before the subcommission.

Senator MARTIN. Mr. Ross, in what business are you engaged?

Mr. Ross. Mr. Chairman, I will say that I am a steamship agent engaged in the foreign trade, representing foreign steamship lines, and my article was written before I had information from Mr. Marvin

as to how far you had examined conditions on the other side. Hence some of my remarks were written before I knew that you had a good deal of information on subjects to which I shall refer.

A lifetime experience in active shipping business has led me to the conclusion that the present steamship industry is similar to what has been said of iron and steel, to wit, "A prince or a pauper." At present it is a pauper. It is a commercial proposition pure and simple. Possibly it is the most competitive business in the world, because every ship, outside of those in the coasting trade or hedged in by large subsidies, must compete with every ship throughout the world, of every nationality. This being the case, the causes for the absence of the American flag in the trans-Atlantic trade are easy to find, but the remedies in a country like America, believing in protection, are as difficult to decide.

Looking at the matter from a commercial standpoint, the problem is for Americans to work it out profitably. The items entering into the question on the side of outlay and expenses are, first, the original amount of investment; second, the cost of operation; and, third, good or bad management; while on the revenue side come cargo and passenger traffic, mails, and subsidies.

All these matters are so involved, varied, and intricate that any opinion is of little value in deciding the broad question unless based upon investigation, not only by the thorough investigation now going on in this country, but an equally thorough one in each country with whose tonnage American ships must compete, as to conditions of the shipping industry in said country, including cost of construction and operation, mail, and subsidy laws, showing results of each various plan, methods of management, the advantages and results of long years of work on the part of regular lines in the establishment and development of trade. Such investigation should also include a full inquiry as to the causes and results of the present depression in the shipping industry and what effect may be expected if American legislation results in the addition of a large American-built fleet to the present excessive stock of world's steamship tonnage, now amounting to 28,000,000 tons gross register, having a carrying capacity of some 50,000,000 dead-weight tons of 2,240 pounds.

As a commercial proposition, with the example of the Morgan combination before them, it is not probable that American capital can be induced to invest in shipping without the facts before them. My friends tell me the Commission has made this investigation through the various consuls, but I wish respectfully to urge that unless it is as exhaustive and thorough as outlined above it will fall short in the information necessary to enable the Commission to lay before Congress an accurate report.

LOW EBB IN SHIPPING.

As to the original investment, right here comes the first complication. We have to deal at the present time with the stock on hand of some 28,000,000 tons gross register of steamships afloat, carrying in the neighborhood of 50,000,000 tons dead weight. We have also to deal with the fact that a great deal of this tonnage is laid up for want of profitable employment and could be purchased for considerably less than a fair market value, while shipyards are so anxious for business that they are constructing new tonnage at a practical loss, and are con-

structing same to a considerable extent, sufficiently so to possibly keep up for some years. Hence the present depression and unprofitable condition of the industry. This being the case, as a commercial question it adds to the difficulty surrounding the American desire to go into the shipping business. It goes without saying that if any man wishes to take up a new business, while he may take advantage of a depressed situation to buy up the necessary plant for less than its value, he is very careful not to undertake the same (if he has to invest) on a basis which at best would show no profit and where his output would intensify the existing depression. For this reason it does not seem commercially possible or practical for the American nation to become a shipbuilding and shipowning one on a large scale until the present surplus supply of tonnage is absorbed into profitable trades.

It is well known that steamships, commercially known as "first-class tramps," and forming the bulk of tonnage afloat, can be built in Europe for about \$25 per ton, dead-weight capacity; that ships afloat in good condition of this class can be purchased, according to age and condition, from about \$10 to \$20 per ton, dead-weight capacity.

HIGHER COST.

The testimony which I have noted (at hearings of the Commission in New York, Boston, etc.), would indicate the cost of construction in this country as 40 to 50 per cent higher than for the same class in Europe. It is a known fact that ships of about six to seven thousand tons dead weight, where well managed, are showing a small profit, even during present depression, and are therefore the popular size for present investment. If we figure how this works out, we find that at \$25 per ton a ship of 7,000 tons, dead-weight capacity, would cost in Europe about \$175,000; at 50 per cent more in America, she would cost about \$87,500 in addition. The fixed expenses to be equalized are depreciation, interest, insurance, and maintenance, which can be stated, without exaggeration, at 25 per cent per annum. The American owner would therefore start out handicapped to the extent of some \$22,000 per annum on a steamer of above size and class. If the ship makes five round voyages to a Gulf port in the year, this handicap would amount to about \$4,500 per voyage. Add to this the difference in expenses through higher wages, etc., \$5,000 per annum, and it would bring the handicap up to \$5,500 per voyage. A 7,000-ton ship would probably carry on an average (after providing for bunkers) about 6,400 tons, equivalent to 85 cents per ton of cargo. As the present rates of freight from Gulf ports on articles like O. C. grain, etc., do not average as much as \$3 per long ton of 2,240 pounds, the American shipowner is handicapped at the rate of 30 per cent on the present current rate of freight.

When it is considered that it is not only new tonnage that the American shipowner would compete with, but second-hand tonnage doing the same work on a much smaller investment, it is apparent that as a commercial investment the intended American investor in shipping must figure that he is entitled to an allowance equal to about \$1 per ton dead weight on the full capacity of the steamship, to put him on the same basis in competing for the great bulk of American export traffic with Europe from Gulf ports.

I am therefore led to believe that no subsidy could pass Congress on a sufficiently liberal scale to attract American investors to American-built tonnage for the purpose of developing on a larger scale the over-sea tonnage, as while I have not accurate figures of the amount of cargo to be dealt with, it is probably in the neighborhood of 80,000,000 tons annually. It would therefore be fair to assume that it would take some \$30,000,000 per annum to put the American shipowner with American-built ships on an equal footing with a foreign owner if the whole trade of the country over-sea is considered.

EUROPEAN POLICIES.

As to the various panaceas that are put forward, subsidies have the more prominent place. I would point out that Austria, France, and Italy (the three European nations which have subsidy laws) have between them only succeeded after many years' effort in developing a total fleet of 2,500,000 tons gross register, at what cost, I do not know; whereas Germany, with a very large percentage of its tonnage receiving no subsidy, has by judicious mail and other subsidies to special lines, developed new trades pretty nearly all over the world, and a fleet of about 2,900,000 tons gross register. Holland, Norway, Denmark, and Sweden, practically without subsidy, have developed a fleet of 2,700,000 tons, and England, with very limited subsidies (and those almost exclusively for mail service), a fleet of about 14,866,000 tons out of a total of 28,632,000 tons of the whole world—this without considering sailing vessels.

A GOOD EXAMPLE.

In my opinion, the United States Government in its present mail-subsidy law laid down the lines of the most practical method of developing new lines and new business for the whole country, but the restrictions of that law called for a class of ship quite impracticable from a steamship owners' standpoint, in size, speed, and therefore excessive investment and running expenses. If this law is modified to meet practical requirements there is little doubt that from it would spring a number of new lines from various ports in the United States.

This country is looking out for new trades a great deal more than it is looking out for an increase in American tonnage, and will support the establishment of lines of that nature. It is useless to call for a large or fast steamer in a new trade, while the steamer that is suitable for short voyages would be unsuitable for long ones. In each trade it would be necessary to investigate the class of traffic to be catered to and developed, the size and speed of ships suitable at the start, and suitable for a continuance. It would be necessary to investigate how long and how great a subsidy would be required in each case.

As a general but not absolute rule, it may be stated that it will take from five to ten years to put any new trade on a paying basis, especially if the ships have to run on schedule time and thereby incur losses through dull periods, which the unsubsidized owner minimizes or avoids by dropping out unnecessary sailings. In my opinion this is as far as it is practicable or profitable for the United States to go in its first efforts toward developing a fleet of American tonnage. It is a practical step, and one which can be followed up by further legislation.

A LINE TO BRAZIL.

Senator MALLORY. I should like to ask you, as a practical man, what speed would you require, say, for mail routes between New Orleans and Rio de Janeiro.

Mr. Ross. That would be largely based on what was necessary in competition with other routes.

Senator MALLORY. I agree with you. I think the speed fixed now is too high, and the size of the vessel is probably too great.

Mr. Ross. For economical working, giving a fair rate of speed, I should say that a vessel of 12 knots would answer all requirements. I do not think there are any other steamers in the trade, at least not many, anyway, which exceed that speed, and most of them are of less speed than that.

Mr. ELLIS. I agree fully with Mr. Ross on that point.

Mr. Ross. Among other panaceas which have been put forward the one which seems next popular to subsidies is some device by which a differential duty shall be established on cargoes imported into this country, except where it is brought on American ships or ships of the flag of the country from which it is imported. Such a device as this would be quite inoperative, as there is nothing which is better understood among foreign shipowners than ways and means of putting ships under whichever flags are required, and generally securing a subsidy in addition. Such a law would therefore only intensify the present situation to the disadvantage of the American owner

FOR LIMITED FREE SHIPS.

As a general commercial question, there is no doubt that an abrogation of present navigation laws would enable Americans to secure some of the bargains which are now obtainable of foreign ships, and would do more than all other methods put together to rehabilitate the American marine. Even if this privilege was limited to a period of five years it would be thoroughly effective, and within five years we should have a class of trained American shipowners who would be patrons of American shipyards. I believe that is the point Mr. Ellis made.

Mr. ELLIS. Yes.

Mr. Ross. And it is hardly possible to expect the establishment of American shipyards (beyond the present ones in existence) on a scale able to build any large fleet within five or ten years.

The commercial reason for advocating this plan is, first, that it is absolutely necessary before American capital can be induced to enter on investment in steamships that steps should be taken to give stability to the value of the investment, and until the supply of world's tonnage is reduced or absorbed into profitable trades new tonnage has no more value than other ships afloat of the same class, and shares in companies whose investment is in tonnage will largely adjust themselves to the selling value of the property they own. How this can be done by American owners, unless by allowing them to acquire for a limited period, say three to five years, the tonnage necessary to start new steamship lines, I can not imagine.

If such permission were accompanied with restrictions which would prohibit such steamships from engaging in coastwise traffic for a period of five years, and by losing their American register unless the owners built an equal amount of tonnage within three years, I can not see where any harm could come, and I can see where otherwise impossible ventures could be started, where American shipyards would be guaranteed an equal amount of construction, and where a large number of permanent customers of shipyards would be quickly created. It is practically on this plan that France, Austria, and Italy, and notably Germany, have built up their present fleets and developed traffic with foreign countries, as without this permission to acquire tonnage wherever cheapest, their subsidy laws would have largely failed of success, nor could they have secured the establishment of anything like the present number of ship building and repairing plants unless by first creating a class of shipowning customers for said yards.

To sum up, from a commercial standpoint a complete free-ship law would do more than anything else, but as that seems impracticable in a protective country, it remains to seek the next practical solution.

I am convinced that, with a remodeling of the mail subvention law to fit businesslike conditions, the passage of a limited free-ship law and some method arrived at whereby American shipbuilders can supply tonnage at the same cost as Europe, we should, in the next ten years, see a large amount of new tonnage under the American flag, a considerable number of new ship building and repairing plants, and what is of more importance, new avenues of commerce developed.

STATEMENT OF JOSEPH KOHN.

Senator MARTIN. If Mr. Joseph Kohn, whose name is next on the list, is present, we should like to hear from him.

Mr. KOHN. Mr. Chairman and gentlemen, I have very little to add to the discussion of this complex question. I am a wholesale merchant in this city, and as a representative of that branch of industry I simply wish to state the fact that here in New Orleans we are mainly interested in extending commerce. I do some export business with Central American points, and with a few in Mexico, and we feel that any measure you may suggest to Congress for adoption which will create a merchant marine belonging to the United States and operated by United States citizens can only tend to increase the opportunity for the extension of this commerce.

I have been a very careful listener to what has been said and a careful reader of what has been written on the subject, and, like everyone else, I must admit that the task before you is a very difficult one.

A BEGINNING.

Nearly every plan that has been suggested has its objectionable features. I do not know of anything that I can add to what has been proposed—and almost every possible remedy has been mentioned and suggested—without raising in my own mind some objection to each. It seems to me that in what Mr. Ross has read to you there is a good deal of force. It would not be possible according to him, and that is

the fact, in my opinion, also, to create at once a United States merchant marine sufficiently large to handle the commerce of this country, both for exports and imports; and there may be some force in what he claims, that for a period of at least five years the privilege should be given to those wishing to operate ships under the American flag to buy in the open market whatever offers itself to advantage, but place a limit on it.

Everything has to have a limit. If we operate a fleet of ships under the United States flag with subventions, mail subventions, as you call them, particularly to the countries with which we have no present commercial connections to any extent, it will be an incentive later on for the men or the companies who operate under the United States flag these purchased ships, to build ships in this country after the expiration of the five-year period when they will no longer be permitted to buy foreign ships. I think everything ought to have a beginning, and we could not begin with no stock in trade, and when it requires fully eighteen months to build and equip a ship suitable for the wants of the trade.

In like manner to what Mr. Ellis has said, I doubt whether enough ships built in this country could be found or could be spared from the coastwise trade to carry even the small quantity of material that will be used in the building of the isthmian canal. All these plans combined, if taken in a conservative way, never forgetful of the needs, the pressing and urgent and constant needs, of commercial communities, ought, in my opinion, finally to bring about the desired result; and this result everybody wishes for. I have not seen a man who or read an article that doubts the wisdom of building up a United States merchant marine. We need it to satisfy our pride in our own country, and the good work which we can do in that line will help us to educate men in the seafaring business, so that we can have them when we need them.

ALL WANT AMERICAN SHIPS.

In every way it is the wish of every citizen of the United States—I suppose your Commission has no doubt on that subject—that we should have a merchant marine belonging to the United States, built in the United States, and operated by Americans. But we can not begin the work by simply shutting off all foreign competition at once. Rather should we adopt the plan suggested by my friend Mr. Ross, to allow citizens of the United States to operate foreign-built ships under the United States flag for a limited time, fixing the limit, so as to give us an opportunity to build our own ships to replace those when we shall no longer be in the market for foreign-built ships.

STATEMENT OF JOHN B. LINDHE.

Senator MARTIN. I understand that some representatives of the American Association of Masters and Pilots of Steam Vessels would like to be heard. We shall be glad to listen to any representative of that association.

Mr. LINDHE. Mr. Chairman and gentlemen of the Commission, I am not an orator. I represent a class of men who worked their way from the fore-castle to the cabin, and I shall endeavor to give you our views,

as far as we understand the matter. Of course we are affected as well as anyone else here. I will read a communication I have here, and explain it as I go along to the best of my knowledge and ability.

"AMERICAN ASSOCIATION OF MASTERS

"AND PILOTS OF STEAM VESSELS,

"CRESCENT CITY HARBOR, No. 18,

"*New Orleans, La., November 14, 1904.*

"*The Congressional Merchant Marine Commission.*

"GENTLEMEN: The undersigned, constituting a committee appointed by the local branch of the American Association of Masters and Pilots of Steam Vessels and known as Crescent City Harbor, No. 18, respectfully submit to your honorable body the following statements:

"We, the constituents of the above-mentioned Crescent City Harbor, No. 18, being men following the profession of navigators, duly examined and licensed by the United States local inspectors of steam vessels, have seen the gradual disappearance of our foreign-going merchant marine, which will, if not remedied, eventually be complete.

"American capital is invested in foreign vessels manned by foreign crews and sailing out of our ports. This condition of affairs has been brought about in a comparatively short period of time.

NO AMERICAN CRAFT LEFT.

"Out of this port we had, ten years ago, about 17 steamers flying our flag and manned by American crews, trading between this port and Central America; to-day we have none; they have been replaced by a far larger number of English, German, and Norwegian ships.

"We, who commanded and officered these vessels are now forced to seek employment in vocations not in line with our early training and experience. We firmly believe that the only way to restore our merchant marine to its former prestige and glory, is to subsidize our foreign-going merchant marine, enabling it to compete successfully with foreign vessels, some of whom are subsidized by their respective governments.

"We further advocate that coastwise restrictions be applied to the Panama Canal Zone. We thereby mean that none but American registered vessels be employed to carry supplies and material for the building and maintenance of the Panama Canal. It has been held by those opposed to ship subsidy that only a few individual shipbuilders and shipowners would profit by it; this is not the case with ships of our own; we need our own crews to man them, as well as our own shipbuilders and mechanics to build and repair them.

"With our national legislators lies the power to bring about the change."

PLENTY OF SAILORS.

One of the gentlemen made a statement here awhile ago that we could not find sufficient crews and officers to man our merchant marine, but we can. All the way from Maine to the Rio Grande they are now farming, they are shoving trucks along the wharves, they are clerking—they are doing anything but what they have been trained to do.

"The American seamen are ready to do all that is required of them,

and we feel sure that the great majority of the American people, if the true state of affairs is put before them, are with us, because we are of them.

"To enable our vessels to compete with foreign vessels in the fruit trade—which trade concerns us the most—we suggest that there be levied a duty on imported fruit and from the revenue derived a fund be created wherewith to subsidize American shipping employed in that trade that would offset the greater cost of operating American vessels."

A QUESTION OF WAGES.

The reason why it costs more to operate an American vessel is that we can not sail for the wages that foreigners receive. Our homes are here; we are American citizens, and we can not live on the wages paid foreign crews, who have their homes abroad and who come out here and serve for two years and then go home, to be replaced by another batch of foreigners.

"We also favor the establishment of nautical schools at some of our great seaports, such schools to be operated at the expense of the National Government."

Every maritime power in the world has such schools operated by the government, which pays the instructor. They have a uniform mode of examining their officers whom they are thus creating, getting the brains of the profession. In this country we have no such schools. We who have served before the mast, of course, served as cabin boys, as ordinary seamen, as seamen, and so on, for from twenty to twenty-five dollars; as high as we get is thirty dollars a month, and of course when we get ashore we are a little wild, and it takes years to save up enough to pay for tuition at a nautical college. There is a private school in New York—the New York Nautical College. The tuition is \$150 a month. I have been to sea about eight years, and I never have been able to accumulate about a hundred and fifty dollars a month to pay for my tuition.

"We further favor the creation of a naval reserve composed of members of the merchant marine, in order to provide a supply of competent officers and crew in case of war, and as an inducement for American citizens to enlist in the occupation of seamen."

NEEDED IN WAR.

In the case of war we were drawn upon. We were taken into the service. Some of us were given commissions in the Navy. Others commanded United States army transports during the war. By having a uniform system and competitive examinations we can get the best men in our profession to serve in case of war.

"A question of no less importance is the safeguarding of our merchant marine after we have brought about its existence. This can only be done by a thorough revision of our inspection laws. We regret exceedingly that an impression has been made since the *Slocum* disaster that the officers of our Steamboat-Inspection Service are incompetent. The majority of these officers have been chosen from our ranks and are by experience and education particularly adapted for that service."

Here is where we are at a great disadvantage. The advocates of free trade, free ships, and free crews, and everything free, as they call it, would just about kill us, because we have served from the bottom upward. We first get a second officer's license, and then we have to serve one year as a second officer, and pass another examination for chief officer's license, and then serve one year more on an American ship before we can get a master's certificate. I know it to be a fact, and I can mention names, that under the present navigation laws licenses have been given to command American ships to men who never have trod the deck of an American ship; that is, they have been credited for their foreign service.

Now, that foreign service may in some instances be all right, so far as England and Germany and those countries are concerned, but there is no reason why if, for instance, a man has been chief mate on a Chinese junk, he should be given credit for that service and be thought qualified and fit to command an American ship. We want men to go through the same mill that we have and to come out the same as we have.

"But under the present laws of the service, a master's license to command an American vessel can be granted to one who has never served on a vessel flying the American flag, provided he can pass the examination in any language."

We have made careful inquiries in regard to that, and the law reads that the examination shall be in writing; but the law is not explicit enough, and therefore the inspector grants them licenses provided they pass in any language.

"This, we contend, is dangerous to life and property, as the discipline on ships of some nations is very lax; and if such a master or officer is placed in command of our ships, we may have many repetitions of the *Slocum* incident. Such men we have nothing in common with. They throw discredit on our profession, and our earnest desire is to see them eliminated from our ranks."

Such men, we say, can not keep up the discipline necessary for the safety of life and property.

"These facts we have brought before you and hope that you will agree with us that the time has come to act.

"Respectfully,

"Capt. JOHN B. LINDHE, *Chairman*,

"Capt. E. SNELLENBERG,

"Capt. A. DRAKE,

"*Committee Representing Masters, Mates, and Pilots.*"

DRIVEN FROM THE SEA.

Senator MARTIN. What business are you engaged in at this time?

Mr. LINDHE. I am beginning life over again. I am studying civil engineering at the Tulane University. I have been in command of sailing vessels and been second in command on steam vessels.

Senator MALLORY. Have you anything to suggest, in regard to the American merchant seamen, as to any necessity for a change of the law so as to make the service more attractive?

Mr. LINDHE. As I said, the establishment of nautical schools where men can be thoroughly trained would be an advantage, and such schools would also create an ambition to rise, to get to the highest

rank, and we would have the best class of seamen then. As it is now, the very fact that a foreigner, in preference to enlisting on any foreign vessel, will go on an American vessel, is proof enough that our service and our treatment are far superior to any other nation's service and treatment. Who represents the nation abroad if it is not the American seamen? [Applause.] It is not the Navy man, because he is bound down by restrictions, but it is the American seaman—the American merchant seamen.

Senator MALLORY. Your only suggestion is that the Government establish nautical schools?

Mr. LINDHE. Yes, sir; and a naval reserve.

Senator MALLORY. We have a naval reserve now.

Mr. LINDHE. Yes.

Senator MALLORY. I do not think it is very flourishing, except in certain localities. I believe the one here is in good condition.

Mr. LINDHE. But it is not composed of the men of the merchant marine. We could very well imitate foreign nations in regard to the naval reserve and also in regard to nautical schools.

Senator MARTIN. Does any other representative of this association desire to say anything?

Mr. SNELLENBERG. I am one of the representatives, but I have nothing to say beyond what Mr. Lindhe has said. We all agree with him on the subject.

STATEMENT OF JOHN A. YOUNGER.

Senator MARTIN. Is there any representative of the Marine Engineers' Beneficial Association present who desires to be heard?

JOHN A. YOUNGER appeared before the subcommission.

Senator MARTIN. We shall be glad to hear what you have to say.

Mr. YOUNGER. I heard it stated here by one gentleman that the cost of maintaining an American vessel is 30 per cent higher than for a foreign-built vessel. I believe I am correct. [A pause.] I am told that the statement was that the cost was 30 per cent greater than for a Norwegian vessel. She is considered the cheapest. She is a foreign vessel.

I commenced steam shipping here with the Southern Pacific ten years back. In fact, I will go further, and say, with Captain Woodward, that I recollect the sailing vessels of this port for four decades; that is, forty years. I am a young-looking man, but I was here forty years ago. To-day I see only one. There is only one that I can see, and that is the one remaining of the S. Oteri Line.

Now to the subject on which I started, I will say that ten years ago, on vessels of a thousand tons up to fifteen hundred, the cost of navigation for the crew alone was eleven hundred dollars in round figures.

Senator MALLORY. Eleven hundred dollars a month?

ONCE ALL AMERICAN.

Mr. YOUNGER. Eleven hundred dollars a month. The trade then was principally conducted by the Southern Pacific, the Oteris, and the Macheca line. We had upward of twenty vessels here doing the Latin-American trade. They were under the American flag, owned by American capitalists, and at the present day we have not one.

This Commission made a trip on the river yesterday and saw something that has not been seen here for the last four or five months. You saw three vessels, I have no doubt, flying the American flag. That is something we have not had in the port of New Orleans on a Sunday to my knowledge for four or five months. I could give you the names of the vessels.

Now, sir, as a body of men we made a demand for an increase of wages. Our duties were increased, and the size of the vessels was enlarged, and the duties were greater, and naturally we asked for more wages and assistants. The cost of living was more.

Senator MALLORY. What body of men do you refer to?

Mr. YOUNGER. The Marine Engineers' Beneficial Association. We belong to no labor organization. We get a license from the United States Government. We can not strike. We can demand an increase, and if it is not allowed we have the alternative of getting off the vessel. But, as I say, we made a demand, asked for an increase, and wherever we did it the vessels were immediately supplanted by foreign vessels, and to-day those lines I speak of have not an American vessel flying the American flag.

Mr. KOHN. Except the Southern Pacific.

Mr. YOUNGER. The Southern Pacific has no vessel running to Latin-American countries.

Mr. KOHN. Except to Habana.

Mr. YOUNGER. I had reference to the fruit trade.

Senator MALLORY. What wages were you getting when you demanded an increase?

Mr. YOUNGER. We were getting a hundred and twenty-five dollars a month as chief engineers, seventy-five dollars as first assistants, and sixty dollars as second assistants.

Senator MALLORY. Was there a demand for an increase of wages in each one of those grades?

CHANGED THE FLAG.

Mr. YOUNGER. Yes, sir; a demand for an increase, and, in accordance with the tonnage, a demand for an increase of assistants—one more assistant. We had first, second, and third on vessels of twenty-five hundred tons and over. They granted the increase, but, as I stated, they immediately changed the flag; that is, they chartered foreign vessels.

Now, the gentleman says furthermore that on foreign vessels the captain gets a salary of a hundred dollars a month, and the chief engineer is even paid in some instances more than the captain. From all the information we can glean, chief engineers are getting less to-day than the first assistant on an American vessel. They get less even than \$75 a month.

Now, it is claimed that, to a certain extent, the extra cost of maintaining the American vessel is what causes us, the American merchant marine, to lose its trade. But do gentlemen take into consideration the time that our men have to serve to become proficient, and the extra cost of living in this country? I may say that while we are intellectually superior to the foreigner, physically we are not equal. In the maintenance of our department of the American vessel we invite inspection. You can take the dock from one end to the other and investi-

gate every vessel with a foreign flag and you will see that none are kept up to the standard of the American.

Senator MALLORY. How many vessels were affected by this demand?

Mr. YOUNGER. There were upward of twenty in this port.

Senator MALLORY. They were put under foreign flags?

Mr. YOUNGER. Eventually.

Senator MALLORY. What became of the men who were engineers on them?

Mr. YOUNGER. They have been driven to other professions. Some of them were machinists. There were those who served time at that trade. A man has to serve two years at the machinists' trade.

Senator MALLORY. Do machinists get as much as \$125 a month?

Mr. YOUNGER. In some instances they make more. It depends on the man's proficiency in the art and his intelligence.

FOREIGN CARELESSNESS.

Now, sir, I will cite an instance. We will show you where we are superior; we will show you something that has never occurred in the port of New Orleans, and that is the accident that occurred to the steamship *Ellis* and another foreign steamship here on her initial trip. That is something that has never occurred to an American in this port. No, sir; under no circumstances has the American ever been so derelict of duty as to let anything of that kind happen to him. That goes to prove that we are superior in every respect to the foreigner, and there are to-day men enough to man all the vessels at this port if they were put under the American flag.

When they charter a vessel in Norway, the crew, as the gentleman says, sign articles for two years. The seaman comes here with her. He gets his salary, and he spends about 25 per cent of his wages here, and the remainder goes back to Norway, whereas every cent of the salary that we get in America is spent right here among our people. There is not a cent of it goes anywhere else. America has the full benefit of it.

Senator MALLORY. According to your statement, the American engineer and his assistants get a salary at least 25 or 30 per cent greater than the same class of men receive on foreign ships?

Mr. YOUNGER. Yes, sir.

Senator MALLORY. That is a fixed fact, one which we have to recognize in dealing with this question.

Mr. YOUNGER. Yes, sir.

Senator MALLORY. What is your remedy for that?

A TONNAGE TAX.

Mr. YOUNGER. The only remedy to equalize that is to place a tonnage duty on the goods transported, the freight carried. That is the only remedy I can see.

A gentleman said here that the unions embarrassed them. He will find that the case in all countries. The reason the foreigner does not embarrass him is because he has signed articles in his own country, and he can not go contrary to those rules when he is in America.

Another thing I wish to impress upon your mind is that when the charter of the foreign vessels expire they return to their own country.

The vessel that comes out to replace her brings a full cargo of supplies for the other vessels that are chartered by the same line whose charters have not expired. Therefore America is deprived of that business. In other words, they spend no more money in America than they can possibly help spending.

Senator MALLORY. Can you say whether any of these American engineers work on those vessels under a foreign flag?

Mr. YOUNGER. They could not. I will say they work under the foreign flag, but at the American scale of wages. We have three vessels that fly the English flag, and we have men of our profession on them who get the American wages.

Senator MALLORY. Americans?

Mr. YOUNGER. Americans; but an American could not under any circumstances go on a foreign vessel and eat and sleep the way they do. It would be a matter of impossibility. He has not been brought up that way. He has been better brought up. The Americans are a better class of men in every way. That is all I can recommend.

Senator MARTIN. We are very much obliged for the views you have given us.

STATEMENT OF JOSEPH REDMOND.

Senator MARTIN. I understand that Capt. Joseph Redmond is present.

Mr. REDMOND. I represent the pilots at the mouth of the river. There is no one more dependent upon shipping than we are, for that is our very living. As I am not able to speak much, I ask you to hear Judge Beckwith. He is thoroughly conversant with this subject.

STATEMENT OF J. R. BECKWITH.

J. R. Beckwith appeared before the subcommission.

Mr. WOODWARD. Mr. Beckwith is one of our very able attorneys and judges. He has a great reputation in this city, and is very familiar with marine affairs.

Mr. BECKWITH. I have represented the branch pilots of the port of New Orleans not only in the matter of their organization, but in the courts in connection with the various questions that have arisen, and for that reason I am familiar, I think, to the fullest extent with their views upon the subject, and can state them to you concisely and without taking too much of your time.

In the first place, you will understand that their connection with commerce and with ocean-going vessels is at the commencement and the termination of the voyage, when they are passing into a port. Their connection is one entirely confined to commerce, and therefore I have for many years given the matter very careful examination and fully appreciate its difficulties.

As I understand the section of the act of Congress read here, the question for you to determine, recognizing the condition that our commerce is off the seas, and expressing a desire to return such commerce to the seas, is by what practical legislation it can be done. So far as the legislation generally necessary to do it is concerned, the answer is very easy: Make it pay. But when it comes to a solution of the question how it is to be made to pay the difficulty is extreme.

MONEY MUST EARN PROFIT.

Money is never invested on emotion. It is invested with the hope of return, and in the case of shipping not only do the investors expect a return on the money invested, but an additional return that will compensate in the lifetime of the ship for its being worn-out in the service. Therefore profitable investments on land will necessarily be selected by people who have money to invest unless extraordinary inducements are held out on the sea.

I will assume that Mr. Ross's figures are correct, and according to my recollection they are. They show what an extremely difficult situation faces the man who wants to invest in floating property in the way of seagoing ships. I believe that the proposition is not stated too darkly by him. I believe he has not overstated the amount of shipping that is now laid up and not earning anything.

AT THE MERCY OF FOREIGNERS.

But there is another matter in that connection which, in considering any remedy Congress may apply, has to be taken into consideration. In our carrying trade here in New Orleans and everywhere else, carried as it is in foreign bottoms, we are still subject to combinations—combinations of foreign ships affecting the rate at which freight or commodities can be transported across the sea. It comes from the combination of lines. I think I may safely assert that so strong is the combination of lines having their combinations made in England that we are practically cut out from the competition which would come from tramp steamers. The tramp steamers, which formerly carried at competitive rates our products out and commodities in, are now very rare; and that, I fancy, is the secret why so many ships are laid up. Where vessels run in regular lines they can very easily, and it is said they do, although I do not assert it as a certainty, crush a tramp when it comes into port. Under the combinations that always are incident to heavy competition, I believe the tramps are affected largely by the alien combination of ships. That is one of the difficulties, and it will occur as long as anyone ships any cargo.

But the question which of course you have to deal with is that of some practical legislation which shall offer inducement to American capital to go into ocean-going vessels.

Mr. Ross's statement, I think, is accurate, and the solution of the problem of how to get as large an interest on sea investments as can be had on land investments, together with the amount necessary to be earned in addition thereto to compensate for the deterioration of the ship and pay back the original investment, looks very serious.

FEARFUL OF SUBSIDIES.

The plan of subsidy has always seemed to me immensely impracticable. In the first place, as I say, money is not invested on emotion. The Government of the United States is not bound, like a State, in any contract it makes in the form of a statute, because there is no prohibition against the national Congress legislating so that it would, on its face, impair the obligation of a contract. People will not

invest money on a contingency of getting paid back through subsidies unless they feel absolutely certain that the subsidy will continue for a certain length of time. If the present Congress, or the next Congress, were to grant a subsidy there would still be this trouble, that before men embarked any money in ships to any large extent, running upon a very close margin, they would want some better guarantee than Congress can give them, I think, that appropriations would be made to meet it, or that the subsidy would not be dropped. I do not say that such a thing would occur, but financiers taking money out of an investment on land that pays 4 or 5 per cent for a certainty to put it into a vessel would be skeptical about it.

Senator MALLORY. Louisiana has not forgotten the sugar bounty.

Mr. BECKWITH. No, sir. It seems there would be that sort of a shadowy guarantee which would hardly attract capital.

Mail subsidies seem equally impracticable. On some routes, yes; but as some one said here before you, with respect to fostering new trade in ports with which we have no commerce, a mail contract that would make it profitable where the ship could earn it in cargo would not likely be granted; and there would be the question whether or not it would be continuous.

EXEMPT SHIPS FROM TAXES.

I am suggesting difficulties. There are difficulties inseparable from the two conditions to which I have referred. There is only one other direction, it seems to me, in which the Commission could go in the way of encouraging investments in floating property: That is to exempt it from taxation; that is, so to impose taxation that taxes would not eat up and destroy the ship while she is laid up.

I believe it perfectly competent for Congress to adopt the English system of taxation; that is, to prohibit State, municipalities, or local authorities from imposing any taxation on American-built ships not predicated upon the net income; and there is such an extreme anxiety on the part of the world to escape the assessor and tax collector that men would be apt then to invest money in that way. That would put the property in a position where it would encourage investment in it, but whether to the extent of restoring commerce or not I do not know.

We are told that prior to 1860 our flag was all over the seas; that we were in a high state of prosperity so far as the carrying trade was concerned; but I do not see it. Our flag was on vessels which had become thoroughly unfitted for the trade and must have rotted on the hands of the owners unless they had been compelled, by fear of capture, to put them under the foreign flag.

Probably that was an advantage to American commerce, for if there had been no assault upon commerce by privateers, our commerce was bound to go because of the fact that the character of the tonnage was no longer fit for the purpose. The ships we had had been worn out in the California trade and the trade around Cape Horn, and I do not think we would have been one bit better off in the way of retaining the carrying trade at the close of the war if we had every ship that either was forced under a foreign flag or was burned or sunk, because they were no longer fit for the purpose.

A COASTWISE MONOPOLY.

I am only suggesting difficulties, but in the experience we have had in the coastwise trade we have a measure of the amount of encouragement necessary to build up a new commerce and make it healthy. No set of vessels were ever constructed or operated in any country on earth, at least within historic times, under the advantages enjoyed by our coastwise trade. The vessel of every other flag is excluded. The monopoly of the entire interstate coastwise trade has been in the possession of the coastwise shipowners and their predecessors ever since the Constitution was adopted. Millions and millions and millions of dollars, untold millions, have been paid directly to that monopoly in the way of increased freight rates on heavy articles.

From the Gulf States the rates are such as practically to exclude us from the lumber markets. The rates are such that I am advised, and I think inquiry will show that it is true, that better rates on lumber cargoes can be made for European ports than for New York.

Now, everything in the way of monopoly, noncompetition, tremendous freight rates for coastwise sea carriage, to encourage the building up of any class of shipping, has been yielded without complaint to that coastwise monopoly. What is the result? The result is three-masted schooners, barges, towed vessels that can hardly carry our flag out of sight of land, and a line of comparatively decent coastwise steamers.

The vessels are good; they appear to be thrifty; but it is a matter for you, gentlemen, to inquire how many of them are not owned by railroad lines; whether there is any steamer running from Boston or New York, Philadelphia, or Baltimore, here or Galveston, that is not under contract conditions, or by virtue of common ownership, to railroad lines not to lessen the rates of the lines carrying by land between those points. I do not say it is true. I say that anybody could have prophesied it, and if it is not the case now, it will be soon.

So much encouragement, and it has been the encouragement of a century, has been given to the coastwise trade, and the result is that I doubt if we could now transport in our own bottoms a division of 20,000 men if we had to go to Cuba again. I do not say it is wrong, but I wonder that many of the Gulf States have been so patient. However, I call your attention to it because it is a measure, to a certain extent, of how much must be done to create a seagoing marine approximating in any degree that which we had in the early years.

OPPOSED TO PREFERENTIAL DUTY ALSO.

There is another matter which I presume you gentlemen have considered more deeply than I have, although from the time it was first suggested to me it has been the subject of considerable thought on my part, and that is the preferential duty. It seems to me thoroughly impracticable not only for the reasons assarted here—the ease with which foreign vessels can meet the proposition—but what is there to prevent retaliation? What on earth would prevent England and Germany from saying to our vessels, “American products brought here in American bottoms shall pay an extra duty equivalent to the discrimination against our vessels imposed by the United States?”

Senator MARTIN. Do you not think the fact that the imports into

those countries are chiefly of food stuffs, and that their people would have to pay the increased price in such an event would deter those Governments from doing that?

Mr. BECKWITH. Possibly.

Senator MARTIN. If they put additional duties on such products coming to them, it would be a tax on their own people.

Mr. BECKWITH. You see what Germany has been willing to do on food stuffs. I do not say those Governments will do it, but I say it is open to them to do it.

Senator MARTIN. I concur; it is a serious problem; but that is one answer to it.

Representative SIGHT. Suppose we exempt from the discriminating duty foreign ships carrying the products of their own country; what inducement would there be to those Governments to retaliate against us?

Mr. BECKWITH. I do not think I am able to get the proposition exactly in detail as it has been stated, but I take it that the idea of a preferential duty is to favor American bottoms and make them preferable as carriers. I take it that the same desire exists in every nation that its own bottoms shall be at least on an equality, if not preferred, and that they would have no trouble in adopting some expedient to neutralize our efforts.

AMERICAN SHIPS COST MORE.

On the question of construction, I will say that, from all examination I can make and have made into the figures, I presume an American ship costs more built in American shipyards. That difference was met at first by improvements in machinery—riveting and punching and drilling machines, hydraulic devices—but similar devices were immediately adopted in English shipyards. It seems to me the difference in the cost of construction can be arrived at very easily, and that it can be met and equalized, without interfering with anybody, by a bounty on tonnage constructed. That bounty might be limited to the construction of ships going foreign under register. But if a ship, as the result of any provision made by Congress, can be built as cheaply in our shipyards as in English or in other foreign yards, and if the property can be safeguarded from taxation, or if taxation can be limited to the net income as in England, and that is not encouragement enough for the investment of money in shipping, I do not see how the result aimed at can be attained. I do not believe that any guaranty, by an act of Congress, of future payments in any way of subsidies, or in any other form, as a premium for foreign voyages will ever be considered certain enough to divert money from paying enterprises on land to investments on the sea. I see the difficulty. It is immense.

Senator MALLORY. I should like to ask you what taxes you refer to when you speak of relieving ships from taxation?

Mr. BECKWITH. If you will examine the register of American ships, you will find the condition now, as it was several years ago, astonishing. Ships are documented in ports they can not enter; that is, their home port is a small port.

Senator MALLORY. I know that.

EVADING LOCAL TAXATION.

Mr. BECKWITH. It is done to get rid of local taxation. If they can get into a small port, with small county or municipal expense and a low State tax, the tax is light. It is a strange thing that vessels owned in New York should be documented in small towns, and that vessels owned here, perhaps, should be documented in small ports on the coast. If a vessel is laid up here, the tax assessor can get hold of her. If the State were prohibited from levying any tax upon a vessels except upon net income, then the man who owns a ship would know that if his vessel did not earn anything she would not be eaten up by taxes or go into the hands of tax officers.

Senator MALLORY. Do you think, from your experience, that that tax is generally enforced on vessels?

Mr. BECKWITH. Always.

Senator MALLORY. That is the only tax you refer to when you speak of taxes. You were not referring to port charges?

Mr. BECKWITH. No; I am referring to the taxation to which they become liable as an asset of the owner. It is 3 per cent in New Orleans. A man who owns a vessel here has to pay 3 per cent on such valuation as the assessor may put on his property.

Senator MALLORY. I know that some of the vessels of the Plant System are documented at New Haven, Conn. The owner has a right to document his vessel wherever he pleases, and thus bring the taxation down to a low figure.

Mr. BECKWITH. Yes. It is absurd, and yet you can not blame the shipowners for doing it. They might be relieved of that burden by law. Men are strongly disposed to make investments in lines where the tax collector can not get at them, even though the profit is small. On the other hand, such exemption from taxation would relieve the vessel owner from the possibility of being eaten up by taxation plus deterioration while his investment is laid up.

A TONNAGE TAX.

Senator MALLORY. Have you thought of the feasibility or advisability of equalizing to some extent the taxation which our ships have to pay by putting a tonnage tax on foreign ships coming into our ports?

Mr. BECKWITH. Before I answered that question I would want to see whether we could do it, because every treaty has a favored-nation clause in it.

Senator MALLORY. You refer to those conventions, but they are all liable to abrogation.

Mr. BECKWITH. As the treaties stand now, I think it would be impossible. Our vessels going coastwise might escape it, because foreign nations have no like vessels, but if you put such a tax on foreign ships; if, in the face of the present treaties, you impose on foreign ships a tonnage due of, say, \$2, you would have to put it on your own ships going foreign.

Senator MALLORY. Unless you abrogated the treaties.

Mr. BECKWITH. Unless you abrogated the treaties, and I think there would be some trouble about that.

Senator MALLORY. I do not think the abrogation of the treaties is as formidable a question as many people think it is.

STATEMENT OF A. L. ROBY.

A. L. Roby appeared before the subcommission.

Mr. WOODWARD. Mr. Roby represents the American Mexican Steamship Company.

Mr. ROBY. I represent what you may call the smaller part of the mercant marine, and my experience is limited to the Gulf of Mexico. We are doing business between New Orleans and Galveston and Tampico and Veracruz, Mexico, and we are part of about 35,000 gross tons that operate from Pensacola, Fla., between Mexican ports. We run four Norwegian ships—two out of here and two out of Galveston.

IN FAVOR OF SUBSIDY.

I presume if I were asked the question, "What is necessary to put our vessels under the American flag?" I would say it is subsidy—money. The conditions would have to be made equal, and I guess that is about the same reply that would be made by all other managers of other lines. We have chartered Norwegian vessels all the way from the rate of £550 a month to £900 a month. With respect to speed, we do not want any more than $9\frac{1}{2}$ knots, because it is economical not to run any faster, as the faster we run the more coal we have to burn. In order to put our vessels under the American flag conditions would have to be equalized by the Government, or by money being secured from somewhere to make the conditions equal.

Senator MARTIN. Or by putting a burden on the foreign ship? That might act as a stimulant to our trade.

Mr. ROBY. I do not think in the Gulf of Mexico to put a burden on the foreign ship would do us any good.

Senator MARTIN. We might put burdens on Norwegian ships coming into our ports.

Mr. ROBY. In the way of tonnage taxes?

Senator MARTIN. In discriminations of all sorts, so that the owners would find it unprofitable to run them. If we put on enough discrimination, so as to make it unprofitable for the Norwegians to run their steamers, would it not act as a stimulant to our marine?

Mr. ROBY. The rates are very low in the Gulf of Mexico, and if burdens were put on Norwegian ships or ships which we can get cheaper than American ships, we could not afford to conduct the line and pay the amount we would have to pay for American ships under existing conditions. We found that where we could get a Norwegian or foreign vessel for £600, a similar vessel of the same tonnage would cost about £900 under the American flag.

MUST EQUALIZE CONDITIONS.

Senator MARTIN. Fifty per cent more.

Mr. ROBY. Yes, sir; just about; that is, in our trade. My opinion, without wasting any more words about it, is that the way to secure the early reestablishment of the American merchant marine is to adopt the following method: First, a subsidy to encourage shipbuilding owners to build ships for long and short time charter; second, to assist already established lines to change to American bottoms; and,

third, to assist and encourage the establishment of lines to foreign countries. I do not think any legislation or anything else will do, except you put up the money and equalize conditions. The American is about as good a competitor as we can find anywhere, and if you put him on an equal basis with everybody else he will get his part of the business. He can not do it where he has to pay such a premium on his own ships as he does have to pay under existing conditions.

Senator MALLORY. Laying aside the first cost of the ship, what, in your judgment, is the particular item of difference in operating expenses between an American ship and a foreign ship?

Mr. ROBY. Principally the wages of the crew and keeping the vessel up to the requirements of the United States laws.

Senator MALLORY. Would it make any considerable difference in the expense incident to the business if we repealed our navigation laws altogether and had no laws that required certain kind of food, certain precautions against accident, and certain kinds of quarters for the crew, and things of that sort? Would that make an appreciable difference, in your opinion?

WOULD NOT GO TO SEA.

Mr. ROBY. I do not think you could get American seamen to go to sea under those conditions.

Senator MALLORY. Would you be able to get foreign seamen?

Mr. ROBY. If the law allowed it, we could.

Senator MALLORY. The law allows a man before the mast to be employed, whether he is a foreigner or not; any ordinary seaman will do. Only the officers of American ships are required to be American citizens.

Mr. ROBY. Our company charter ships, and they have practically nothing to do with the operation of the ships or the handling of the crew or officers. But my observation of most of the foreign vessels along the docks of the different ports I have been to is that very few Americans would go aboard of them for the wages and accommodations and the meals.

Senator MALLORY. I admit that, of course. I think it is true. On the Pacific coast the companies have been employing Chinamen largely on American ships, and great complaint has been made against it.

Mr. ROBY. Yes, sir.

Senator MALLORY. The singular fact is that right alongside of Americans, you pay a Chinaman 40 per cent less wages, or even considerably less than that. But there is at present no inhibition of law on the part of the United States against the employment of men of any nationality as firemen or sailors. Therefore, so far as they are concerned, I do not think that that difficulty would present itself in increasing or making more burdensome the expenses of running a ship. So far as the officers are concerned, of course under the law you must have American masters and engineers and mates, and the difference in wages between the American masters and the foreign masters is, I understand, very considerable; probably 30 per cent.

Mr. ROBY. About.

Senator MALLORY. Do you know anything of your own knowledge on that subject?

ONLY NORWEGIAN VESSELS.

Mr. ROBY. No, sir; I do not. We have never had experience with anything but Norwegian vessels; and, as the representative of one of the associations said a while ago, as far as I have been able to learn, the chief engineer of a Norwegian ship gets about what a second or third engineer does on an American vessel.

Senator MALLORY. I understood you to say that if you had to employ American vessels in this trade under the present conditions you would not be able to carry on the trade?

Mr. ROBY. We would have to go out of the business.

Mr. JAMES E. FLYNN. Will the gentleman yield for a question?

Mr. ROBY. Certainly.

Mr. FLYNN. Does the line you represent carry to Mexican ports as much cargo as the New York and Porto Rico Steamship Line does to the island of Porto Rico?

Mr. ROBY. I do not know what they carry. Tell me what they carry.

Mr. FLYNN. They run vessels out of this port every ten days with a full cargo. They average about 3,000 or 4,000 tons per trip.

Mr. ROBY. We average about 2,000 tons every fourteen days.

Mr. FLYNN. You claim that if you had American bottoms you would have to run your ships at a loss?

Mr. ROBY. Yes, sir.

STATEMENT OF JAMES E. FLYNN.

James E. Flynn appeared before the subcommission.

Senator MARTIN. Will you please state what your business is.

Mr. FLYNN. I am deputy United States shipping commissioner.

Senator MARTIN. Proceed with your statement.

Mr. FLYNN. Mr. Chairman and gentlemen of the Commission, I will state that on November 1, 1893, I was appointed deputy United States shipping commissioner at this port. At that time there were sailing out of this port to Central American ports and Cuban ports some twenty odd vessels under American register. From 1894 to 1904 the aggregate shipment and discharge of seamen out of this port was 115,000 men, at an annual salary of between \$300,000 and \$350,000 per annum.

OUR SHIPS ALL GONE.

I am indeed very sorry to state that during the present year (the beginning of the fiscal year is July 1) there has been but one American vessel in port from a foreign port or bound to a foreign port, and that was the *Mississippi*, of the Atlantic Transport Line. There was a time when this port was second to none but New York in the shipment and reshipment of seamen in American vessels, as statistics will show. The men were getting good wages out of this port, and they were worthy of them, because they were a class of men who could be relied upon. It is true, like all seafaring men, they would come in port, and, after getting paid their wages, they would go off for a

good time, and they might show up a little under the weather, but as for delaying vessels or causing any trouble to masters or owners—that is, any serious trouble—I have the first ship yet to see sailing out of this port since 1893 which has encountered it.

I have mixed up with the men; I have gone to their forecables, to their mess rooms, and looked around mighty carefully, as I take a deep interest in the concerns of the office, and I think the only remedy is to place a duty upon all cargoes coming into American ports in foreign vessels sailing between American ports and ports over which they have no jurisdiction. Then take this duty, let it be \$2 per ton, or whatever the case may be—and apply it to the upbuilding of our merchant marine. Take bananas, for instance. Say you place a duty of 5 or 10 cents a bunch on bananas. The owners of foreign steamships or the charterers of foreign steamships will not be sufferers by it. It is the consumer who will have to pay it. The banana is not a necessary of life, it is a luxury.

A RESERVE FUND.

Let this tax that is placed upon bananas, or in fact any other cargo, be set aside as a reserve fund for the purpose of upbuilding the American merchant marine, just as the tax was levied on seafaring people, not only in deep water, but in shallow-water vessels. They were compelled to pay a tax of 40 cents per month, which went toward maintaining the marine hospitals throughout the length and breadth of this country, and no matter what position one occupied aboard a vessel, whether on a steamboat or a sailing vessel, a steamship or a tug or a ferryboat, he was compelled to pay this tax. He derived a benefit in this respect. If he got sick or met with an accident, he was sent to the marine hospital and there was properly taken care of.

This fund got to be an enormous thing. It went up into the millions, I believe, and it got so enormous that the Government saw fit to repeal the law. Now I understand that this fund is taking care of the United States marine hospitals, paying for the surgeons and all those who are employed, and the medicines and one thing and another. I dare say that if the tax I suggest were placed upon foreign vessels bringing products from a country over which they had no jurisdiction, in the course of years that fund would grow as enormously as the hospital tax did. At that time, as I said before, we had twenty odd steamers running in and out of this port. It is true that the wages are higher out of this port than out of any other port.

COMPARING WAGE ROLLS.

It was just now remarked by the gentleman who preceded me that he could charter a vessel for £600. On the steamship *Louisiana*, belonging to the Southern Pacific Company, plying between here and Habana, Cuba, every month the pay roll figures \$2,600. The steamship *San Juan*, running between here and the island of Porto Rico, figures \$2,110 per month. That is for wages alone, from the master down.

Senator MALLORY. How do the sizes of those vessels compare?

How does the *Louisiana* compare in point of tonnage with the *San Juan*?

Mr. FLYNN. The *Louisiana* is a vessel of about 3,000 tons gross, and the *San Juan*, I think, is about 2,500 tons.

Senator MALLORY. What is the size of the vessels engaged in the fruit trade?

Mr. FLYNN. In the fruit trade they range from 1,000, I dare say, up to 1,200 tons gross; that is, the bulk of them.

Mr. ELLIS. A thousand to twenty-five hundred?

Mr. FLYNN. Very few of them run up to 2,500. The average is about from 1,000 to 1,200 tons gross.

MEN NEED COMFORTS.

Now, there is another thing. In reference to the navigation laws, I think they could be amended in a great many respects, taking it from a seaman's standpoint. In foreign vessels, the majority of them compel their crews to furnish their own bedding—that is, mattresses, sheets, etc. In our vessels no such clause is stipulated in the articles. Some of the vessels have mattresses, others have not; but I think the laws ought to be enacted so as to provide proper accommodations. The space is there all right, and there is enough space for the crew, both in the engineer department and the deck department, and the steward's department; but some vessels have no mattresses on their bunks.

Take a fireman who is down below the water line in the fireroom, standing his four hours' watch, and who is wet with perspiration and tired, and it is rather a hardship on him to lie down on a bunk without a mattress or on a hard piece of canvas, which you will find on some American vessels. I think the least thing that the shipowners could do would be to supply their crews with mattresses.

As for victualing the ship, there is not a vessel floating any flag that feeds any better than our merchant marine. On the Southern Pacific Line out of this port the steamers have three and sometimes four kinds of meat for the crew at the same meal. You have steak, mutton, pork, salt meat. I am positive there can not be found on vessels under foreign flags the same line of food.

You can place great confidence in our men. The only thing is they go off and get on a little tear once in a while. There is no bother. The ship is ready to go to sea when the time comes.

Senator MALLORY. From your experience are most of the seamen—the men before the mast—the men engaged in the seamen's position aboard American steamships Americans?

MOSTLY CITIZENS.

Mr. FLYNN. The majority of them are, with one exception. Take Italians, as a general class they do not apply for citizenship; but take the Irishman or the Swede or the Dane or the German, and the majority of them are naturalized. If not fully naturalized, they have declared their intention. I have not the figures as to the number of naturalized citizens sailing out of this port.

Senator MALLORY. There is one other question I should like to ask

without leading you off too far from what you wish to say. As deputy United States commissioner, have you given thought to the question whether or not the law prohibiting advances to sailors in the coastwise service should be repealed?

Mr. FLYNN. I do not think advance wages should be allowed seamen in the coastwise trade, for the simple fact that out of this port, anyway, the voyages are short and the vessel is bound to come back here. You will find in this port, as well as in all other seaports, an unscrupulous set of boarding-house keepers who are only too pleased to take advantage of a poor sailor. In my experience I have known sailors to get off vessels with as high as \$50 or \$60 and three days afterwards they were up in my office looking for a dime or 25 cents to get something to eat with. They would get to a sailors' boarding house and squander their money; stay three or four days before they could ship, and an allotment note or advancement note would be drawn for \$15 or \$20. The men would say they owed that amount of money, but in my humble opinion they did not.

Senator MALLORY. What is your idea about extending that provision to the foreign-going ship?

Mr. FLYNN. As to the foreign-going ship, I would suggest that the law remain as it is, for in the foreign-going ship those who ship on vessels either as firemen or sailors or coal passers have no intention of coming back to the State, and at this port it is more of a family circle, so far as concerns the seafaring people. There are quite a number of them who are married, and, as I said before, they do not care about making any long voyages. They are perfectly satisfied to make a voyage from here to ports in Central America, but to go across the Atlantic to European ports, so far I have not shipped any who really belonged to this city.

Senator MALLORY. Have you had an opportunity of ascertaining the view of the sailor himself on the subject of advance wages? Do you know what the sentiment of the average American sailor in the coastwise trade is on that subject?

Mr. FLYNN. No, sir; I have not.

THE SAILOR'S SAVINGS.

Senator MALLORY. It was suggested in one of the sittings of this Commission, at Philadelphia, I think, that it would be a wise modification of that law to permit the sailor to deposit his advance wages for the benefit of his family—who are living, say, in New Orleans—in the hands of the United States shipping commissioner; that the sailor should be allowed to draw his advance, but that it should be paid to the United States shipping commissioner, subject to use by the sailor's family in case of necessity. The United States shipping commissioner in Philadelphia, I think it was, seemed to think that would be desirable, because it very often happens that a man can not, owing to the present law on that subject, get anything in advance for his family, who are really in need.

Mr. FLYNN. As it is now, we have only three American vessels sailing out of this port; one belonging to the Southern Pacific and two belonging to the New York and Porto Rico Steamship Company. Those are the only three vessels, and, of course, the advance allot-

ment is restricted in that trade. Last month I shipped about 18 men on the steamship *Maine*, belonging to the Atlantic Transport Line, and they all had an allotment issued to them; but none of them belonged to the city. They were not home folks. They were all strangers. Another enactment that I think ought to be made, or the law ought to be revised, is from a steamship-owners' standpoint. As I said before, you find a vessel about ready to go to sea, and some controversy is brought up with one or two members of the crew who are a little under the influence of liquor, and they stay ashore and refuse to go and perform their duty.

NO PROPER PENALTY.

There is no punishment given to them—only a forfeiture of their wages and their clothes which they may have on board. If a sailor or a seaman intends to quit a ship on sailing day, he is going to find ways and means to get his clothes off without the knowledge of the watch officer; and he does not care for the day's pay or the two days' pay that may be due him. I think the law ought to be reenacted, as it has been heretofore in a case like that, and the masters have the privilege of calling upon the local police or upon any Government official who is thereabouts to place the party in custody until such time as the vessel is ready to go to sea, and then compel him to perform his voyage, just as they do on foreign vessels, provided the treaties do not conflict with it. In the case of a sailor on a British or Austrian or French vessel deserting here the master of the vessel reports to his consul, who in turn reports to the United States commissioner, and the party is arrested; and if it is proven that he is a deserter he is placed in prison until such time as the vessel is ready to go to sea.

Representative SPIGHT. In other words, you are in favor of criminal prosecution for failure to keep a civil contract?

Mr. FLYNN. I do not say a criminal prosecution, but just to keep them in safekeeping; just as a policeman would pick up a simple drunk on a street and keep him until he is ready to go home.

Representative SPIGHT. It would, in effect, be a criminal prosecution—to put him in jail and keep him in custody.

Mr. FLYNN. Until such time as the vessel is ready to go to sea?

Senator MALLORY. Using force to compel the sailor to carry out his contract?

Mr. FLYNN. Yes.

Representative SPIGHT. Yes.

Senator MARTIN. Is there anything further you wish to say?

Mr. FLYNN. That is all.

STATEMENT OF GEORGE HAWTHORN.

Senator MARTIN. Is there any representative of the sailors' union present?

George Hawthorn appeared before the subcommission.

Senator MARTIN. What is your present occupation?

Mr. HAWTHORN. I am secretary of the Marine Firemen's Association.

Mr. Flynn has given you almost full particulars as to the situation here, but I have a little memorandum which I desire to present:

[Marine, Firemen, Oilers, and Watertenders' Union, Local No. 530. Affiliated with International Longshoremen and Transport Workers of America. Frank Carey, president; Geo. Hawthorn, secretary.]

NEW ORLEANS, LA., *November 14, 1904.*

THE MERCHANT MARINE COMMISSION.

HONORABLE SIRs: As you desire the hearing of different persons upon the betterment of American shipping and seafaring men, I hereby address you.

BOTH SUBSIDY AND TAX.

The only way I think they can better their condition is by placing the subsidy on American bottoms, so they will be able to enjoy that trade which is now being absorbed by the Norwegian vessels, and by placing on all foreign bottoms an import tax.

If this import tax was imposed, the American vessels would enjoy a part of that great fruit trade now being absorbed by the Norwegian vessels, as the foreign vessels have the advantage of securing their crews from their own home port and sending them out on some of their company vessels, and paying smaller wages for the same.

Hoping that you will now see the advantage the foreign vessels have over the American, and begging that my explanation will meet with your approval,

I remain, respectfully, yours,

GEORGE HAWTHORN, *Secretary.*

FRANK CAREY, *President.*

Senator MALLORY. You are secretary of the Marine Firemen's Association?

Mr. HAWTHORN. I am secretary of the Marine Firemen, Oilers, and Water Tenders' Union Local 530.

Senator MALLORY. Have you any suggestions to make relative to any improvement of the condition of the firemen, outside of building up the merchant marine? Have you any complaint to make as to the conditions that now exist?

IMPROVING CONDITIONS.

Mr. HAWTHORN. No; I can not say that I have. I think so far as the American ships are concerned there have been a great many remedies in regard to the seafaring class. They have been provided better in food on American ships. We have one or two, at least, foreign ships here that employ our American crews, and they fare the same as on the American ships, owing to the advantage of having a union here.

I do not know how the foreign ships feed. Some tell me they come over to the American ships, and the three English employed by the United Fruit Company say they are on starvation treatment. They are provided with blankets, bedding, and have plenty of space to sleep in, because we look after that. Our crews will not go to sea until they are provided with those things. They look to it as an act passed that they should have all those provisions.

Senator MALLORY. You have no suggestion to make, then, relative to any legislation which you think is desirable on behalf of the firemen?

Mr. HAWTHORN. Not at present. We are trying to see if we can benefit them, and when we get together we generally bring those subjects up between one and another to see what remedy we can make for them; what remedy they have been denied.

As Mr. Flynn said, of course some ports have not the advantages which this port has. When a man leaves a vessel, I am always around to see that she is provided with a man and that she goes out on time.

Senator MALLORY. That is part of your business?

Mr. HAWTHORN. Yes, sir; part of my business as secretary.

Senator MALLORY. Do you find any competition with the sailors' boarding-house people in that business?

Mr. HAWTHORN. They do at times, but we remedy that.

ADDITIONAL STATEMENT OF JAMES E. FLYNN.

Mr. FLYNN. There is one point that I overlooked in my address.

You will find where some seamen desert a vessel they leave wages behind them, and the consequence of it is that they forfeit their wages and come off to some lawyer who looks at nothing but the fees. He sees a fee in sight, and that is all he is looking for. He will go down to the clerk of the court and place a libel against the vessel, forcing the master, owner, and agent to a great deal of trouble, worry, and, at the same time, expense. They go to work and place a pauper's lien on it. A law ought to be enacted compelling the clerk of the court, whether district or circuit, to find out from the United States shipping commissioner if the seaman has reasonable cause to place a libel against the vessel, in order to save expense, worry, and trouble.

I remember on one occasion a certain lawyer here in this city libeled a vessel just about an hour before she was sailing, and it happened to be on a Saturday, and it put the master and agent of that vessel to unnecessary trouble, and he had no cause whatever for libeling the ship. If he will come up to our office and get the full particulars and look at the log as written by the master of the vessel, and the answer to the seaman, there would be no necessity for him to go down and institute a libel. I think that, also, ought to be incorporated in the navigation laws.

Senator MALLORY. You think there should be some modification of the present law authorizing seamen to take the pauper's oath?

Mr. FLYNN. No; I do not object to their taking the pauper's oath, but I think it is wrong to accept the plea of a seaman in a case where he has no justifiable cause in so doing, especially after the commissioner has decided as to the outcome of the case.

Senator MALLORY. As I understand you, you think there should be a sort of preliminary examination before the commissioner?

Mr. FLYNN. Before the shipping commissioner.

Senator MALLORY. Not the United States commissioner?

Mr. FLYNN. No. That in itself would offset this trouble and expense.

STATEMENT OF JAMES SHERRARD.

Senator MARTIN. Does any other gentleman desire to be heard?

Mr. WOODWARD. We have with us the superintendent of the Seamen's Bethel.

Senator MARTIN. We will hear him.

Mr. SHERRARD. Mr. Chairman and gentlemen, I have had charge of the work for the seamen in this port, in connection with the New Orleans Seamen's Friends Society, for the past six years. I have met with thousands of seamen of all nationalities. I have been very much impressed with the fact that there are very few American seamen shipping on any ships that come to our port. On one occasion, when there were about 400 seamen present at the Bethel, we made a test to find out how many of each nationality were present. We found seven or eight or ten nationalities represented, and among all there were fewer American seamen than those of any other nationality, although we were on American soil.

SEA HARDSHIPS.

I have studied the question considerably to find out the cause or the reason why Americans as a class do not go to sea. My first impression is this: The quarters on board the ships are not at all inviting or desirable for a man to spend his lifetime in. The quarters assigned to the ordinary seamen and firemen is called the forecabin. It is an apartment in front of the ship at the very bows. Some of you gentlemen may or may not have been in one of those compartments, but it is a V-shaped room, tiered up to the top almost with bunks. In the center is a table where the men have to eat, and the balance of the space is almost taken up with the benches. Very often, as some gentleman said, there are no mattresses on those bunks, and the men have to sleep on the hard boards unless the sailors aboard the ships have provided themselves with such accommodations.

The wages paid to the seamen are not a sufficient inducement to urge a young man to go into the business as a lifetime affair. I think the port wages from New Orleans at present are about \$30 per month.

Mr. HAWTHORN. That is on American ships?

Mr. SHERRARD. On American ships. If the wages were continuous that would look like a very good salary, but the sailor is employed for the round trip only. He is discharged at the end of the voyage. He is paid off. He has no further claims on the ship. He has to go to a boarding house and wait until he can secure another ship, and he has a good opportunity for spending every cent that is coming to him before he can secure another ship.

Another disadvantage is this: For a young man, ambitious to go—

Senator MALLORY. Right here, before you go any further, let me ask you what remedy you would suggest for the short shipping of the sailor. Would you advocate a longer shipment, two years, say, as some foreign nations do, or as the Russians do—for four years?

Senator MARTIN. It is voluntary with them?

Mr. SHERRARD. I think one advantage would be, where seamen prove themselves to be desirable, that they should be remunerated

more than others. Another advantage would be if they possibly could be retained on the ship for more voyages than one at a time.

Senator MALLORY. I do not think you can compel that by law.

Mr. SHERRARD. Shall I proceed?

Senator MARTIN. Yes; proceed.

DIFFICULT TO FIND A BERTH.

Mr. SHERRARD. Another disadvantage with regard to the seamen is this: When a seaman finds himself in a port he rarely can find employment himself independently. He has to go to a shipping master or to a boarding-house keeper in order to secure a ship. Now that looks rather strange, but it is so in this city. I have known men who did not want to go to sailors' boarding houses who were compelled at last to go simply because they could not secure a ship by personal application.

The ships are in the habit of sending to the boarding houses to secure their crews, and in many instances the ships have contracts with the boarding-house keeper to supply those crews; so as to save them any trouble whatever in securing their own crews. An independent seaman who wants to ship on his own account without the use of another man finds it almost impossible to do so. Is not that the case?

Mr. HAWTHORN. On foreign ships.

Mr. SHERRARD. On some American ships it is awful hard for them to get on, too.

Representative SPIGHT. Would you suggest any remedy for that condition?

CAN NOT ADVANCE.

Mr. SHERRARD. Another thing is that it is almost impossible for a young man to ever look forward to being raised from ordinary seaman to a captain's position. In nearly every other line of business the prospects are of getting to the top some time in life, but a young man in the forecandle rarely ever reaches anywhere else. It is a life-time business right then and there.

He can not afford to give up his position to go and study navigation and go to school unless he has friends who can support him during the time he is going to school. He has to pass examinations to be admitted to any higher rank than that of quartermaster or boatswain. If he wants to be a mate, he must study navigation. He then has to pass another examination before he is admitted to be second mate, and another, I think, before he is allowed to be first mate, and one again before he is allowed to be a captain, and all these examinations require study and application which he can not give on a ship.

Senator MALLORY. Would you favor allowing a man to command a ship who was not able to pass the examination?

Mr. SHERRARD. No, sir; I am holding this out as a reason why young men generally do not like to go to sea. I would not be in favor of a man——

Mr. FLYNN. Will the gentleman yield for a question?

Mr. SHERRARD. Certainly.

YOUNG MEN DO SUCCEED.

Mr. FLYNN. Do you know, from your personal knowledge, any young man who ever went before the mast who did not succeed in elevating himself?

Mr. SHERRARD. I know some that have.

Mr. FLYNN. Who have succeeded?

Mr. SHERRARD. I know a few cases where men who have been before the mast are now captains.

Mr. FLYNN. I understood you to say they could not succeed.

Mr. SHERRARD. It is a very rare thing.

Mr. FLYNN. For the benefit of the Commission I will state—

Mr. SHERRARD. Of the thousands and thousands of men who are constantly at sea there is only one in a very large number, probably one in a hundred—one in a thousand, perhaps—who ever reaches that position. You know it, too.

Mr. FLYNN. I will state to the Commission, with respect to the communication presented here by the American Masters and Pilots Association, that I know the three gentlemen personally. I knew them when they were before the mast—ordinary A. B.'s—that is, able-bodied seamen, and those three gentlemen have elevated themselves until they are to-day capable of navigating a vessel of any tonnage whatever, as their licenses state. The only thing is that there are no American vessels here for them. Two of the gentlemen are here present, and they can verify my assertions.

THOSE WHO WORK HARD CLIMB.

Senator MARTIN. I think that is true in every vocation, in coal mining as well as in seamanship, and everything else. It is only those who work hard and improve themselves who elevate themselves in this life. I do not think that is a subject of inquiry.

Mr. SHERRARD. Of the many thousands at sea how many have you ever known to get into that position?

Mr. FLYNN. I cite those three as examples. I know others, firemen and coal passers, who have elevated themselves until they are to-day holding steam engineers' licenses.

Mr. SHERRARD. That is the exception and not the general rule.

Mr. FLYNN. It is the exception.

Mr. SHERRARD. I am only stating the reasons why young men do not choose seamanship for a lifetime business.

Mr. LINDHE. I wish to say that every man commanding an American vessel has begun life before the mast—every one.

Mr. WOODWARD. That is correct.

Mr. SHERRARD. There are on ships, I do not know whether in the United States Navy or not, what are called sailor's apprentices and officer's apprentices. Officer's apprentices are taught navigation and everything else, but the man before the mast has little opportunity to do anything but steer the ship as quartermaster.

Senator MARTIN. He has every opportunity, if he has the talent and the ability.

A CABIN BOY SENATOR.

Senator MALLORY. I know one United States Senator who began as a cabin boy and worked himself up to the position of master, and finally came to the United States Senate.

Mr. SHERRARD. He is the only one.

Senator MARTIN. Senator Perkins, of California.

Mr. WOODWARD. I desire to say that I commenced as a boy in the ship's forecandle at \$9 a month. I did not go to sea for the sake of being a sailor. That is not the object of the young man—to spend his lifetime as a sailor. There is a better spirit that animates the American sailor. It is to get up in the world. I went through all grades until I became master of a ship, and then I came into a large navy ironclad during the war.

Mr. SHERRARD. You had an opportunity to study navigation?

Mr. WOODWARD. I studied navigation at sea. I never went to a navigation school in my life. I studied navigation, and I can navigate any ship all over the world. I learned every bit of it at sea.

Mr. SHERRARD. Did you pass an examination?

Mr. WOODWARD. Yes, sir; as an American ship master, at New York.

Representative SPIGHT. There is one member of this Commission who began life as a cabin boy.

REMARKS OF CAPT. T. J. WOODWARD.

Mr. WOODWARD. Mr. Chairman and gentlemen, I think about all the interests have been represented, and as it is getting late, perhaps you wish to close the session.

Senator MARTIN. I do not think there is anything further we can do this evening. I desire, on behalf of the Commission, to thank the board of trade for its courtesy, and all the gentlemen who have appeared before us for their intelligent and helpful information.

Thereupon (at 4 o'clock and 40 minutes p. m.) the subcommission adjourned.

HEARINGS AT PENSACOLA.

ROOMS OF THE CHAMBER OF COMMERCE,
Pensacola, Fla., Tuesday, November 15, 1904.

The subcommission met at 10.30 o'clock a. m.

Present: Senators Martin and Mallory, and Representative Spight.

Senator MALLORY. If anyone is prepared to submit any opinions or views, we shall be glad to hear them.

ADDRESS OF J. C. AVERY,

President of the chamber of commerce.

Mr. AVERY. Mr. Chairman and gentlemen, we did not anticipate having a formal meeting of the chamber, but a great many members of the chamber of commerce expected to be here to meet you gentlemen and to submit what they might have to say in reference to the special matters you have in charge.

I have not thought it necessary to make any formal address, and,

besides, I confess that personally, I am somewhat ignorant on the subject that brings you gentlemen here.

It is needless for me to say that we are more than glad to meet you all, and hope you will enjoy yourselves while you remain with us; and if there is anything you can suggest in connection with which we may assist you, we shall be very glad indeed to have you make the suggestion now.

Senator MALLORY. I should like very much to have Mr. Wells, or Captain Hayes, or Mr. Warren, who are familiar with the smack business of this port, give us a brief statement as to what it is, the character of the sailors employed, and anything bearing on that point which they wish to submit. Of course the investigation covers a very wide scope, and we should be glad to get the views of anyone on any subject connected with the commercial marine.

Mr. AVERY. Mr. Warren is here, and I do not know of anyone better qualified to speak on that subject.

Senator MALLORY. I spoke to Mr. Wells. I understand he has been notified, and he told me he would come. I also spoke to Captain Hayes some time ago and asked him to prepare himself to submit any views he might wish to give; but I understand he is under the weather. If Mr. Warren has anything he would like to say, he may as well begin now. I think Mr. Wells will be here by the time Mr. Warren shall have concluded.

STATEMENT OF A. F. WARREN.

Mr. WARREN. Mr. Chairman and gentlemen, I do not imagine that I can give any testimony which is other than cumulative. You have already had all sorts of information, and probably you know more than I do about the present condition of the shipping industry.

In 1864 I was enrolled as an apprentice in a shipping house in Boston that owned large ships, and they were very profitable, or had been very profitable up to that time. The ravages of the privateers put an end to it. At that time they were running a line of ships from Liverpool and one from London, and during the time I was with them their ships were in all parts of the world—in China, in India, in South America, in the Pacific trade, and throughout the world, scattered everywhere, as the old merchant fleet used to be. I was with the house two or three years, and during that time they lost some ships and sold others, and they practically went out of business.

Senator MALLORY. That has been the case all over the seaboard.

Mr. WARREN. Yes, sir.

Senator MALLORY. We recognize it as a fact that our merchant marine has broken down to a point where it is carrying only 8 per cent of the products of the country.

Mr. WARREN. I believe after the war there were very many merchants in Boston who were building ships and who continued to build them until 1870, if I mistake not, and at that time they all disposed of their ships and went to building railroads; and my impression had been that when the time came that the railroads were built and as the profits of that business became less they would turn back again to ships. But I seem to have been mistaken in that respect.

PENSACOLA'S FLEET.

Now, in regard to our local business and the little shipbuilding or smack building we do here, of course we are protected by the tariff from the incursions of the foreign fishermen, and we are also protected by locality. There has been built up here within the last twenty years a fleet of about 40 fishing vessels, which probably represent somewhere upward of \$300,000, cost price. We have imported them from the North, and of late years we have built them here, and I have been very much struck since building them here with the advantage that accrued to the labor and the community in having such an industry carried on in its midst.

Senator MALLORY. How many vessels has your concern?

Mr. WARREN. We are now building No. 5, all built here, and our neighbor is building three. We built a number in Maine, and we have brought a great many from the East.

Senator MALLORY. What is the character of those vessels?

Mr. WARREN. They are vessels of about 50 tons gross tonnage, and after the most improved models of the eastern fishing fleet, and we believe we build them here better than they are built anywhere else; that the materials we put in them and our experience have enabled us to develop a type of vessel which is eminently adapted to this business.

Senator MALLORY. To how many men does the fishing fleet give employment?

Mr. WARREN. The average is from 8 to 9 men to a vessel, and there are about 40 of them.

FORTY SAIL, FOUR HUNDRED MEN.

Senator MALLORY. In those 40 do you include the vessels that fish in our shallow waters?

Mr. WARREN. No; I mean only those vessels that are engaged in the snapper fisheries.

Senator MALLORY. How far from our coast do they go?

Mr. WARREN. In summer time they go down off Cape San Blas, 150 or 200 miles. This season they go off Campeche bank, which is 500 to 600 miles.

Senator MALLORY. These smacks are all provided with ice?

Mr. WARREN. With ice.

Senator MALLORY. Ice chests?

Mr. WARREN. Yes.

Senator MALLORY. Or ice compartments in which the fish are kept?

Mr. WARREN. Yes.

Senator MALLORY. According to your statement there would be between 300 and 400 men employed in that industry?

Mr. WARREN. Four hundred men. Counting those staying home from one trip to another, there would probably be more than 400 men in this port employed in that industry.

Senator MALLORY. What is the nationality of those men; are they Americans or foreigners?

Mr. WARREN. They are very largely foreigners. When the industry first was commenced here, the vessels used to come down here in winter from Connecticut and bring Connecticut men, and then the

source of supply moved to Maine and Massachusetts, and we had Massachusetts fishermen and Maine fishermen. But of late years there are no more of those coming here, and we largely depend upon the men we pick out of the fleet of ships that come here.

Senator MALLORY. What nationality are they?

Mr. WARREN. A good many are Italians and a good many are Scandinavians.

Senator MALLORY. Are the men, as a general rule, naturalized, or have they declared their intention to become citizens, or do they quit and go back home?

Mr. WARREN. Under the law the masters are obliged to be American citizens.

Senator MALLORY. I know, but I refer to the fishermen.

DO NOT GO BACK.

Mr. WARREN. The men do not, as a general rule, become naturalized, but I do not think that many of them ever go back. We have had men who went back to Italy with the intention of staying there, and in a short time they came back again.

Senator MALLORY. You have said that you build those vessels here. Is there any shipyard here or in the vicinity where you can have one of these smacks built?

Mr. WARREN. There is a yard which has been established, at our initiative, at Milton.

Senator MALLORY. At the head of the bay?

Mr. WARREN. At the head of the bay; and Saunders & Co. build theirs at the site of the marine railway on the other side of the bay. I do not think they have any on the stocks just now.

Senator MALLORY. How do the smacks rank as sea boats?

Mr. WARREN. They are among the best.

Senator MALLORY. Will they ride out a gale of wind?

Mr. WARREN. They ride out every gale.

Senator MALLORY. They do not stay in port on account of rough weather?

Mr. WARREN. No, sir; we were speaking of it the other day. The fishermen on the eastern coast——

Senator MALLORY. You mean the New England coast?

Mr. WARREN. The New England coast. They are in the habit of running to a safe harbor whenever there comes a severe gale. But our fishermen are obliged to ride out any gale that comes along, as they go out so far there is no harbor available. The boats are entirely seaworthy and staunch and strong.

Senator MALLORY. Have you given any thought to the condition of the merchant marine, the large carrying vessels of commerce, as to what we can do to add to those we now have, and increase the interest of the people in the matter of commerce?

Mr. WARREN. I can not say that I have given it enough thought to have formulated any scheme. As I understand, there are two plans, one the matter of subsidies and the other providing for differential duties.

Senator MALLORY. There is still another, and that is free ships and free officers and crews.

OPPOSED TO FREE SHIPS.

Mr. WARREN. I should be entirely opposed to that. We have just completed one vessel in whose construction we expended here \$8,800. She is about 50 gross tons register, and there is nothing in her that was not produced in the United States, except a little hemp. There is a little hemp used in the bolt rope of a sail which is imported from Russia. Otherwise I do not suppose there is an ounce of any material in her that was not grown or manufactured in the United States by Americans. To buy ships abroad I do not think would be of any advantage, because I do not think you could buy as good a ship, and you certainly could not run her any cheaper after you got her here because of the fact that she was built in Glasgow than you could if she was built in the United States.

That is the great difficulty in the whole matter. We have had that illustrated. We had a good many Italians in our employ. These gentlemen are well aware of the standard of living aboard an Italian ship. Mr. Mallory is, at any rate. Those men, as soon as they get aboard our vessels, although they pay for their own provisions, are as much inclined to be luxurious as any men in our employ. In fact they are more so. They spend more money for fancy groceries and things of that sort. They would not work on an American ship unless they got American wages and the American schedule of food.

GOOD PAY, PLENTY OF MEN.

Senator MALLORY. How are the men on these smacks compensated? They fish on shares, I believe?

Mr. WARREN. They fish on shares.

Senator MALLORY. How does their compensation compare with the wages of an able or ordinary seaman in the merchant marine?

Mr. WARREN. I think it averages higher.

Senator MALLORY. Do you have any difficulty in getting men as smackmen?

Mr. WARREN. No; there are plenty of men offering. There is, however, at all times, a scarcity of the very best, and that exhibits itself particularly in the second class of vessels. Of course all our vessels are not equally good, but the vessels that are of the first class and which have skippers who are fortunate and get fish have no trouble at all. But when you come to some of the second-class vessels they sometimes encounter some difficulty in getting competent men. But there is always an opportunity to get all the men you want. There is no question about getting the men.

Senator MALLORY. To go back to the general subject, in addition to a straight subsidy to aid ships, it has been suggested that we adopt a plan of discriminating duties on goods imported into this country in foreign bottoms from countries other than those to which the ship belongs. It is called a discriminating duty on the indirect trade. Have you anything to say on that subject?

Mr. WARREN. That is a matter on which I have no personal knowledge. Last summer I spent some time in Bath, Me., and I fell in there with an old retired sea captain, one of the old kind, who was a captain for many years, and has retired for a considerable time. I

asked him this question: "If you could have just what you wanted, what would you have?" He is a man of great intelligence, and a man who made a success of his occupation when he was engaged at it. He said he believed the discriminating duty was the thing. Of course you gentlemen know there is an infinite difficulty about the matter of a straight subsidy. I think it would be almost impossible so to hedge it about that there would not be considerable fraud in it.

Senator MALLORY. Do you mean that it would go into the hands of a few parties?

Mr. WARREN. It would go into the hands of people who did not earn it. I suppose it would be expected that if the ordinary merchant ships were to be subsidized the subsidy would be dependent upon their carrying cargo.

Senator MALLORY. Have you any idea how many vessels come into this port per annum?

Mr. WARREN. Mr. Stillman can probably tell you.

Mr. J. E. STILLMAN. Approximately 500. (A pause.) No, there are not as many as 500. There are probably between 400 and 500, and about two-thirds of them are foreign vessels.

Senator MALLORY. The rest are coastwise American vessels?

FOREIGN GOING VESSELS.

Mr. STILLMAN. Yes, sir.

Senator MALLORY. Do you know whether any vessels engaged in the foreign trade under the American flag come into this port?

Mr. WARREN. Yes.

Mr. STILLMAN. Some of these local people?

Mr. WARREN. There are two or three. A man by the name of Axelsen owns a vessel called the *Donna Christiana*. I think he trades almost exclusively with South American ports. The *Doris* runs to Cuba.

Senator MALLORY. But approximately there is no commerce under the American flag with foreign ports except this very small and casual commerce in the few vessels owned in this port.

Mr. WARREN. There may be a few vessels loading lumber for Cuba.

Mr. STILLMAN. The *Doris* is one.

Mr. WARREN. Formerly there was considerable trade from this port to West Indian ports, but I think it has mostly died away. I know there was one gentleman who fitted up quite a fleet of barges with the expectation that they could carry lumber to Cuban and West Indian ports, but he is unable to find any employment for them.

Senator MARTIN. Because there is no demand for the lumber?

Mr. WARREN. I should judge so.

Senator MARTIN. It is not because other vessels are carrying the lumber?

Mr. WARREN. I think not. I think he was in a position to carry it more cheaply than anybody else.

Senator MALLORY. He towed it in barges. Is there anything you wish to add to what you have said?

Mr. WARREN. I do not think of anything else.

Senator MALLORY. We are very much obliged to you.

REMARKS OF SENATOR MALLORY.

Senator MALLORY. I will read to the gentlemen present a portion of the act of Congress under which the subcommission is here. It is the second section and a part of section 3 of the act of April 28, 1904:

"SEC. 2. That it shall be the duty of the Commission to investigate and to report to the Congress on the first day of its next session what legislation, if any, is desirable for the development of the American merchant marine and American commerce, and also what change, or changes, if any, should be made in existing laws relating to the treatment, comfort, and safety of seamen, in order to make more attractive the seafaring calling in the American merchant service.

"SEC. 3. That the Commission shall give reasonable time for hearings, if deemed necessary, and if necessary it may appoint a subcommission or subcommissions of its own members to make investigation in any part of the United States."

The Commission has investigated this question or made inquiries of all who know anything on the subject along the North Atlantic, the Great Lakes, and the Pacific, and we have recently been to Galveston and New Orleans, and have now come here. We are going from here to Brunswick, and thence to Newport News, making a complete circuit of the coast line of the United States.

Of course there has been a great diversity of opinion among commercial men and shipping men as to what is best to be done under existing conditions. The object of the Commission is to get the frank views of every man. We do not wish to be understood as wanting any particular view. We want the views of gentlemen who have given the subject any thought at all.

With that statement we shall be glad to hear from any other member of the Chamber of Commerce of Pensacola or any other gentleman present who would like to favor us with his views.

STATEMENT OF J. E. STILLMAN.

Mr. AVERY. I should like to say that Mr. Stillman is collector of the port, and possibly he would be able to give information in some direction that would be of interest to the Commission. He is also vice-president of the chamber of commerce.

Senator MALLORY. We shall be glad to hear from Mr. Stillman.

Mr. STILLMAN. Mr. Chairman and gentlemen, I have not given this matter any thought, which I should have done, knowing that the Commission was going to meet here.

I have just looked up the statistics in the report of the chamber of commerce. I see here the statement that the number of American vessels entered from and cleared for foreign countries from this port for the year ending December 31, 1903, was 15 steam vessels and 16 sailing vessels; and the statement of vessels entered from foreign ports, steam vessels, 172; sailing vessels, 130.

UNDER FOREIGN FLAGS.

Senator MALLORY. Under foreign flags?

Mr. STILLMAN. Yes, under foreign flags. Of foreign vessels the total was 172 steam and 130 sail. I think I had in mind the proportion between sail and steam when I made my previous statement about two-thirds. The proportion is much greater than two-thirds.

Senator MALLORY. According to your statement there are probably 31 or 32 American vessels sailing foreign out of the total number of vessels that came in?

Mr. STILLMAN. Yes. The total number of foreign vessels was 252, plus 134, which would be 386 foreign vessels, and only 31 or 32 American vessels.

In regard to the matter which this Commission has in view, it seems to be recognized that the American people are deficient in their share of trade in American bottoms, and the reason for it seems to be that the law requires that an American vessel to go into the American trade must be built in the United States. It would seem that that was a condition which had to be overcome.

IN FAVOR OF A SUBSIDY.

Personally, from what thought I have given the subject, I am inclined to think that a subsidy is the panacea for the condition which exists. The information given by Mr. Warren, tending to show that vessels should be built in this country, and the very proper idea that American labor should be protected, constitute a very strong argument in that direction. We in Pensacola I should think should be especially inclined to that opinion, from the fact that we undoubtedly have one of the most logical and natural positions for a shipbuilding plant in the United States, being so close to the steel and coal and iron of Birmingham and the timber sources.

Senator MALLORY. Would that not be equally an argument in the event that Congress should adopt the plan of discriminating duties, stimulating the building of American ships because of their being able to carry cargoes at cheaper rates than the foreigner, and leaving the law as it is, that none but American ships should carry the American flag or be registered? If it is a fact, as it is contended, that discriminating duties would be an incentive to the building of ships and putting them into trade, would not the same benefit to the American laborer and the American shipbuilder accrue from that plan as from the plan of a straight subsidy?

Mr. STILLMAN. Possibly that is true. I confess I do not thoroughly understand the plan of discriminating duties. It seems to me that a subsidy is not so objectionable. We all know that the moneys collected for disbursement by the Government are collected in such an indirect way that they are hardly felt. A man who takes his drink or his smoke continually pays tribute. To my mind the payment of a subsidy would be the better way of the two. At the same time, I say I do not understand thoroughly the plan of discriminating duties.

TO THE SHIPOWNER.

Senator MARTIN. Would it be your idea to give the subsidy to the man who built the ship or the man who operated the ship?

Mr. STILLMAN. To give it to the man who operated the ship. The man who built the ship, I should judge, would be protected in the fact that the law required that ships to fly the American flag must be built in America.

Senator MALLORY. Have you any knowledge of the condition of the American sailor aboard American ships, either coastwise or foreign, or of any defect whereby he suffers any injustice or on account of which any change should be made in the legislation of the country to protect him and to better his condition?

Mr. STILLMAN. I do not think I have. My observation has been that the American seaman has better quarters and is probably better fed than the foreign seaman. The provision by which the American seaman is taken care of in the marine hospital when he is sick is very liberal; and, so far as I am informed, I should say that the conditions provided for the American seaman are at least better than the conditions which prevail with respect to foreign seamen.

Representative SPIGHT. Do you know of any complaint in this port of the ill treatment of American seamen?

Mr. STILLMAN. None to speak of. I recall one or two isolated cases where American seamen thought they had not been treated properly.

Senator MALLORY. Is there anything you wish to add?

Mr. STILLMAN. There is nothing further.

STATEMENT OF F. F. BINGHAM.

Mr. Bingham appeared before the subcommission.

Senator MALLORY. What is your occupation or business?

Mr. BINGHAM. I am assistant manager of the Southern States Lumber Company, and incidentally interested in ships.

Senator MALLORY. We shall be glad to hear anything you may have to say bearing on the general subject.

Mr. BINGHAM. Will it be in the form of interrogatories?

Senator MALLORY. No, sir. We should like to have your views, in your own way, if you have given the subject any consideration.

Mr. BINGHAM. It looks as though it were necessary to establish some sort of a bounty system. There has been a proposition, I believe, to reduce the tariff on goods imported by American vessels. But this country's principal shipping business is in exporting bulky goods and importing goods of small bulk. So a reduction in tariff, while it would help, would not, I think, build up American shipping a great deal. A bounty must be imposed on the basis of the goods carried, export or import, or there must be a mileage bounty to equalize the difference in wages in operating an American ship and a foreign ship. That is my general idea.

A BOUNTY DIRECT.

Senator MALLORY. You favor, then, a bounty or a subsidy—direct aid to ships for the purpose of equalizing the operating expense?

Mr. BINGHAM. Yes, sir.

Senator MALLORY. Of course, you understand that the first cost of American ships as compared with ships of other nations is very great. The first cost is one item which is a serious thing to deal with.

Mr. BINGHAM. Yes, sir.

Senator MALLORY. It has been testified that the difference runs up from 30 to as high as 60 or 70 per cent.

Mr. BINGHAM. Yes, sir.

Senator MALLORY. Then the operating expenses, as you have stated, are necessarily with American wages much greater than under foreign flags?

Mr. BINGHAM. Yes, sir.

Senator MALLORY. Your idea is that, in order to equalize that difference, a direct subsidy would be the best remedy?

Mr. BINGHAM. Yes, sir; something in that form. I do not know; I have not studied it a great deal as to what form it should take, but it should be of that effect.

THE OLD HISTORIC SYSTEM.

Senator MALLORY. The proposition has been made, and it is dwelt on at some length by those who favor it, that we can go back to the old system which originally was resorted to to build up the American merchant marine, of discriminating duties, with a modification that vessels belonging to any particular foreign nation shall not be discriminated against in bringing goods from that particular country, but only where they undertake to bring goods to the United States from a country foreign to their own flag. The principal reason for that is that we have some thirty-odd treaties with the principal commercial nations of the world, in which we agree not to discriminate against their vessels and in favor of United States vessels.

Mr. BINGHAM. I can see that it would be very awkward to put into effect any system giving American vessels a preference. I hardly see how it would be practicable with goods imported.

Senator MALLORY. Is it not a fact that the shutting out of goods from foreign countries, where they are shut out, is due to the high protective tariff we have? Now, if you cut that down, say 50 per cent, would it not stimulate the importation of goods that are bulky and would fill up ships?

IMPORTS OF SMALL BULK.

Mr. BINGHAM. That is a tariff proposition. I am high tariff. No; I do not think so. We only import, as a general proposition, goods we do not produce in this country. We do not import lumber or coal. Those are the principal bulky items. We import coffee and tea and silks and things of small bulk, but of great value, which do not do a ship very much good which is carrying cargo at so much per ton.

Senator MALLORY. The tariff, as a general rule, is levied largely on the ad valorem principle.

Mr. BINGHAM. That seems to me a kind of a different proposition—the question of the tariff and the question of a ship bounty. I do not know just how they would overlap.

Senator MALLORY. Take silks, for instance, brought from Japan to the United States. The theory is that by reducing by 50 per cent

the duty on silks when brought here on American ships you would stimulate the employment of American ships in that trade; and inasmuch as the tariff is based on the value of the goods rather than upon any other consideration, it is contended—I am not saying that I have any special view on the subject—that that would be a wholesome way of stimulating the employment of American ships and at the same time get around the objection to the straight subsidy which has been very largely urged; that a straight subsidy is likely to gravitate into the hands of large corporate concerns that own the large lines.

Mr. BINGHAM. It would help to that extent. Anything that gave a preference to American ships would help to that extent.

Senator MALLORY. Of course I am not here to give my views. I am here to get yours.

Mr. BINGHAM. I understand.

Senator MALLORY. I made that statement in an endeavor to elicit your opinion on that point.

Mr. BINGHAM. Giving preference to American vessels on goods imported, by reducing the duty, would certainly help to that extent; but I do not believe it would go to the extent of building up the American merchant marine.

THE QUESTION OF WAGES.

Senator MALLORY. Have you considered the question of the difference in wages? I believe you have owned American vessels.

Mr. BINGHAM. Yes, sir.

Senator MALLORY. Have you considered the difference in wages between an American vessel and a vessel engaged under a foreign flag?

Mr. BINGHAM. It varies so greatly that I do not know just how you would get at it. The vessels we have to compete with here in the Gulf in the business I am engaged in are Nova Scotia vessels, and their wages I do not suppose are over half what ours are. In the deep-sea trade across the Atlantic the difference is very great.

Senator MALLORY. Have you had enough to do with the detail business of shipping here to be able to say whether there is a discrimination in the wages of American seamen aboard an American vessel at this port, bound on a particular voyage, and the wages of a foreign seaman employed at this port on a foreign ship bound for the same port in a foreign country?

Mr. BINGHAM. There would be this difference. The foreign sailor is engaged abroad.

Senator MALLORY. As a general rule?

Mr. BINGHAM. As a general proposition. He comes down here with the ship, and the cargo is loaded here.

Senator MALLORY. He makes a round trip.

Mr. BINGHAM. Very largely. They do not ship their sailors here.

Senator MALLORY. But when they do ship sailors here, at what rate are they shipped?

Mr. BINGHAM. It varies. I suppose the average is twenty-five dollars a month.

Senator MALLORY. Suppose there is a five-masted American schooner which wants to replace men who have deserted or quit, and

suppose there is a Norwegian bark that wants a number of men to make up her crew. Do you think there would be any difference in the wages paid to the men employed in this port by the respective ships in order to fill up the crews?

Mr. BINGHAM. No, sir; I do not think there would be any difference.

Senator MALLORY. That has been my belief all along.

Mr. BINGHAM. Probably there would be a little preference to the American vessel, as the seamen would know they would get better treatment and be better fed.

Mr. AVERY. Are not the wages higher for American seamen?

Senator MALLORY. Only in certain ports. But I am speaking in reference to Pensacola alone. I think in New York and Philadelphia, and possibly in Boston and Baltimore, the testimony is that the fact that the vessel is an American vessel immediately puts up the wages; but in Galveston and in this port the fact that she is an American vessel does not necessarily make the wages any higher.

Mr. AVERY. The impression I have had for a number of years is just the contrary. But I have not any data on the subject which I could furnish. It is only an impression.

BOTH ARE RIGHT.

Senator MARTIN. No doubt both are right. I reckon you are right, because, for the most part, the foreign vessel, as has been stated, signs her sailors at a foreign port, where the rate is lower, and therefore of two vessels in your harbor the foreign vessel will be paying on the average lower wages than the American vessel. But the reason is that the sailors on the foreign vessel were contracted for at a foreign port.

Senator MALLORY. The Russians generally ship for three or four years; the Swedes and Scandinavians for two years.

Mr. AVERY. The Italians, I believe, ship at a very low rate.

Mr. BINGHAM. Yes.

Senator MALLORY. Yes.

Mr. BINGHAM. But the Senator was speaking of sailors to replace runaway sailors in port.

Senator MALLORY. I was speaking of a case where there was a lack of crew and they had to ship here, and I was endeavoring to ascertain whether the fact that a vessel is American would make any difference in the wages. My impression is that it would not; and Mr. Bingham seems to be of the same opinion.

Mr. BINGHAM. I do not think it would make any difference.

BURDENSOME TAXATION.

There is one other question. I do not know whether or not your investigation covers it, but there is one thing which would certainly help Pensacola shipping and vessels owned in Pensacola engaged in the foreign trade. That is a Government law—a national law—exempting vessels in the foreign trade from local taxation. In my own case I have never been able to get any reduction in taxes.

I have to pay the same tax on a ship going foreign that a Palafox street store would pay, enjoying fire protection, police protection, and all the other safeguards that Government affords.

Senator MARTIN. What is the rate of taxation at Pensacola? Take vessels owned by you that sail from Pensacola.

Mr. BINGHAM. I am not an owner right now, but the tax rate on vessels is the same as on any other property.

Senator MALLORY. What are the city taxes?

Mr. BINGHAM. About 11 mills.

Mr. W. C. JONES. The city and county tax is 27 mills.

Mr. STILLMAN. There is a difference in the rate if you are outside the line of fire protection. On a vessel you would pay the rate for outside the fire limit.

Mr. BINGHAM. I do not know about that.

Mr. JONES. He would pay the fire-protection tax. Any property within a radius of 2,000 feet of a fire hydrant takes the highest rate, 11 mills.

Senator MARTIN. You think absolute freedom from taxation for all capital invested in the shipping business would be a stimulant?

Mr. BINGHAM. Yes, sir; on vessels going foreign. I do not mean tugboats or fishing smacks, because they have Government protection; but take a vessel that is going off to foreign ports, and paying all the high charges in foreign ports, and being held up in all directions, contending with the dangers of the sea, and it looks to me like it ought to have some sort of protection when it comes home.

Senator MARTIN. You think that such exemption from taxation would be material and would be helpful?

Mr. BINGHAM. Yes, sir; very material.

Senator MALLORY. Is there anything else you would like to suggest? I did not know the tax was so serious.

Mr. BINGHAM. It is a very serious thing. The way it is avoided in some ports—

Senator MALLORY. They document the vessel in some small port.

Mr. BINGHAM. They document them in some port where they never go; and then some ports have an exemption. Of course it is a form of dishonesty for me to have a vessel here, to own her here, and have her hail, say, from Milwaukee.

NOT THEIR REAL HOME.

Senator MARTIN. And never go there to pay the tax.

Mr. BINGHAM. And never pretend to go there.

Senator MALLORY. The Plant steamers hail from New Haven, Conn.

Mr. BINGHAM. Yes, sir; I believe we had a vessel here that hailed from Warrington.

Senator MALLORY. They must hail from a port where there is a custom-house.

Mr. BINGHAM. I do not believe that saved them. That was the intention. I believe they had to pay. That is the usual way of avoiding the tax.

Senator MALLORY. You think, then, as Senator Martin has drawn out, that exemption from taxation would be a material help?

Mr. BINGHAM. Yes, sir; very material, and I should like to see it.

Mr. AVERY. That would require local legislation.

Senator MALLORY. No; I think the United States Government can do it.

Mr. BINGHAM. I know the Government exempts Government bonds; but whether it would be constitutional to exempt floating property, do not know.

Senator MALLORY. Do you know where the *Doris* hails from?

Mr. BINGHAM. No; I do not.

SEVERAL GENTLEMEN. Pensacola.

Mr. BINGHAM. The original intention was to hail her from down East, but I am now told they hail her from here. Considering that in return nothing of a value is given to a vessel, it seems an outrage to make a vessel pay a tax; in other words, pay for what it does not get. If you go to the local officials and try to get a little reduction they say you are a tax dodger; that you are like all other property owners; that you want to dodge your taxes. They do not consider at all the difference in the kinds of property.

STATEMENT OF F. O. HOWE.

Senator MALLORY. Is there any other gentleman who wishes to be heard?

Mr. AVERY. Mr. F. O. Howe, who for many years has been interested in the shipping business, is present, and I have no doubt he will be able to give the Commission some information.

Senator MALLORY. We shall be glad to hear from Mr. Howe.

Mr. HOWE. Mr. Chairman and gentlemen, I have given some consideration to this question, but not sufficiently in detail.

The bulk of the world's trade is done by what we call tramp ships such as you see out in the harbor here, and when you get down to the principle of a subsidy, the question is how it would affect such an enormous mass of tonnage, if once started. My idea, personally, has been free ships, to buy them or to build them where you can, in the cheapest market, and I think that is the only way for at least ten or fifteen years, or the quickest way at least, to secure any great rehabilitation of the merchant marine.

FREE SHIPS AT FIRST.

For instance, if you undertook to build any number of ships at short notice in this country, the yards are not here to build them in, and the very fact of protection or subsidy would create such an immense demand that the yards could not supply any number of ships to go into competition with the ships we now have to deal with and meet. I might possibly be that the stimulation of such a subsidy would bring new yards, because they would be protected, and would in that way meet the demand. For instance, if we were to place an order to-day for such a boat as we have coming in here and loading with timber, we could not get her within two or three years.

Senator MARTIN. What sort of a boat?

Mr. HOWE. A boat of 2,000 or 3,000 tons, of 6,000 or 7,000 tons dead weight; those under the foreign flags.

Senator MARTIN. What would she cost?

Mr. HOWE. In England, say, £30,000 or £40,000—\$150,000 to \$200,000. On this side, I do not know, but I suppose she would cost \$100,000 more. The difference is the extra profit that goes into the

hands of the shipbuilder here, which is perfectly right, but still it puts us at a disadvantage. In this port, and especially for the last seven or eight years, there have been what you call bargains knocking around all the time. We could have bought ships in this port for as low as £5,000 or £6,000—\$30,000—and we know just how much cargo of coal or cotton or lumber they took, or almost anything else you could mention. In fact, in the case of one ship we sent an engineer aboard and had him examine the boilers, and we knew the condition of the boilers and the condition of the ship.

AT BARGAIN PRICES.

It was offered to us for about \$27,000, and it was a ship that would have cost new to build on this side at least \$100,000. Since the Spanish war Spain has built a lot of those ships. The parties go in on small capital. It is much easier to put up \$50,000 or \$100,000 than it is to put up \$300,000 or \$400,000. You pay less interest on small capital, and less insurance, and the same ship will compete with one built and costing, perhaps, three or four times the money; and even if freights are low, as they are now, she will come out where the other ship will not. The other ship has to make more money to come out even or to compete with her.

Senator MALLORY. But that is only one-half of the trouble. The operating expenses of American ships are a great deal higher than those of foreign ships.

Mr. HOWE. Yes; but I do not think they would be so much greater on foreign-going ships. My idea would be if we had been in position to buy such a ship as I spoke of and to put her under the American flag, by this time there would have been a great many such ships owned in this country, and I doubt whether the operating expense would be so much more, because the British ships pay pretty fair wages and have pretty fair rations—

Senator MALLORY. Would you have our navigation laws remain the same; that American ships should be officered by Americans?

Mr. HOWE. Are they so officered now?

Senator MALLORY. Yes; that is the law.

Mr. HOWE. I did not know that would apply. But suppose an American ship is in a foreign port; she can employ any sailors she can get.

Senator MALLORY. That is true so far as common sailors are concerned; but I was speaking of the captains, the mates, and the engineers.

AMERICAN OFFICERS.

Mr. HOWE. I think they ought to be Americans.

Senator MALLORY. Do you know the difference—you ought to know, and I think you do know, probably—between the wages paid to the master of a 2,000-ton net British ship or Norwegian ship and the master of a 2,000-ton net American ship, say, a vessel like the *Pensacola*?

Mr. HOWE. It varies. Many of the English captains who have been in positions of trust for a long time get more wages than others.

Senator MALLORY. Take a Norwegian ship.

Mr. HOWE. I was going to say that for an English ship the rate

ordinarily is \$75 a month. That, of course, is about half of the American rate.

Senator MALLORY. There is one of the items.

Mr. HOWE. Then, again, I have known a good many English captains who got \$100 or \$125 a month, but in all cases a little lower than our rate.

Senator MALLORY. That is the statement of our Commissioner of Navigation, and it has also been shown by the testimony. In the case of Norwegian and Italian ships the pay is much less than on British ships.

Mr. HOWE. I think it is less still. There is no doubt they run those ships more cheaply, but even with that, the British ships compete with them, and I believe the American ships could do so if the other conditions did not exist.

Generally, I should say that to me it seems almost impossible for us to build up a merchant marine suddenly without going out and buying up ships, because, as I say, it would be ten or fifteen years before we could get a decent fleet together, if we are to build them, and in the meantime we would lose the opportunity of picking up cheaply these ships to which I have referred.

IN SMALL SHARES.

It is possible to buy a British ship and keep her under the English flag, as is done in New York; but you can hardly go before a lot of small people and explain the matter to them. In England this course is pursued: One man who has the confidence of the people in the trade goes to a shipbuilder and contracts for a ship, and he launches a prospectus. He sends his prospectus all over the country, and the people subscribe in £1 and £5 shares. Perhaps in some of those ships there the several hundred subscribers; but everything is under the British flag. But we can not do that here. If we could say we will buy a ship and put her under the American flag and organize a company for that purpose, there would be very little difficulty in getting up such a company.

The only way we can do it now is to buy a ship, such as the one I spoke of a little while ago. Suppose three or four of us put up the money for her purchase. We would then have to open an office in Liverpool, or some other port over there, register her there, and have the annual meeting there, and she would be nominally under the foreign flag, but still operated from here. But the ordinary small stockholder would not understand that way of doing business. It bars us out from making any extended effort in that direction.

Senator MALLORY. You are engaged in the ship-brokerage business?

Mr. HOWE. Yes, sir.

Senator MALLORY. Have you any idea, and can you say, whether at this time the shipping business is paying in any nationality?

LARGER SHIPS STILL PROFITABLE.

Mr. HOWE. I think from what I can see personally that it is only paying in two or three cases. It is paying on these very large modern ships that lately have been launched or built, ships with enormous cargo capacity, with modern devices for handling the freight

and the ship, using a smaller number of men. They can take freight at these rates, and probably leave a margin, where some of the small ones may be losing.

Then again it is paying in special lines of trade. Take vessels chartered from here to Tampico. Those vessels are making money, I think. I should think the smaller vessels coming in here could hardly be making anything at these freights, although some of them are running so cheaply that probably they manage to squeeze out. The German flag is increasing all the time. We are handling a great many German vessels.

Mr. BINGHAM. The German vessels have a subsidy.

Mr. HOWE. The Spaniards have increased their fleet very much. Vessels which were under the British flag are now running under the Spanish flag. I have chartered some of them myself. The buying of them at a smaller price than they were originally built for enables that to be done; and everything counts at these freights.

HIGH CLASS AMERICAN VESSELS.

Now, when it comes to the higher class of vessels, I do not think that would apply so much, because you take a higher class vessel, built in an American shipyard—and our shipyards build a better class of vessels—and the owners can much more easily afford to pay the enhanced price for the protection on a vessel of that class, even if it is two or three hundred thousand dollars, than they could on one of these small freighters. Take a passenger steamer out of New York, costing probably \$2,000,000 or \$3,000,000, and an extra \$100,000 or so on her cost would not be so much, while the extra cost is very much out of proportion on a smaller vessel.

Senator MALLORY. What is the average rate of speed of vessels engaged in the export business from Pensacola generally? I refer to vessels seeking cargoes and charters here.

Mr. HOWE. I should say 7 or 8 nautical miles, although we charter a great many vessels that come up to New Orleans for cotton, liners, and yet not exactly liners, which make 10 or 11 or 12 knots.

Senator MALLORY. None of them make 14 knots?

Mr. HOWE. No, sir; I do not think so. The fruiterers, of course, do. That is another thing. There has been an enormous trade built up in fruiterers, and the Norwegians have almost all of that. I know people in Mobile who own three ships, built in Norway, and they are building three more. There should be a remedy for that. Nearly all the fruit business going out of New Orleans and Mobile and the whole Gulf is under the Norwegian flag.

WITH SUBSIDY WOULD PAY.

Senator MALLORY. From your experience, do you think a mail line, largely subsidized, from Pensacola to Rio Janeiro or from Pensacola to Buenos Aires could, if the subsidy was large enough to pay, say, two-thirds of the running expense, be made to pay in course of time?

Mr. HOWE. Yes; I think it could. In fact, that is one of the schemes we had without a subsidy.

Senator MALLORY. Without what?

Mr. HOWE. Even without a subsidy. That is one of the schemes

our old firm had in view some years ago. But it could hardly be done without a subsidy. We might run them right now with coal and lumber.

Senator MALLORY. I am speaking of a mail subsidy.

Mr. HOWE. I understand.

Senator MALLORY. And of vessels with some passenger accommodations, but largely freight vessels, and not necessarily of very great speed; say 12 knots.

Mr. HOWE. Yes, I think it could. Such a line ought to stop at some of the islands down there, like Trinidad, and with mail and passengers and freight both ways it ought to pay.

A LOT OF MONEY.

When it comes to the question of subsidies, I think if it was agreed upon it would be an awful thing. It would be something like putting protection on the cotton crop. It would take an awful lot of money, too.

Senator MALLORY. I am speaking of a few subsidized mail lines to countries where we might have some hope of building up a trade, or rather taking the trade away from the nations that now have it. With Brazil and the Argentine I believe American ships have practically no trade, though we do import large and valuable cargoes from those countries.

Mr. HOWE. Considerable goes to New York.

Senator MALLORY. But we have no line to Brazil.

Mr. HOWE. There is the line from New York.

Senator MALLORY. We did subsidize a mail line, but I think it was done away with. It did not pay.

Mr. HOWE. I think lines like those would pay.

Senator MALLORY. Do you think it would have an effect in stimulating American shipping?

AID FOR ALL.

Mr. HOWE. No, I do not, outside of these special lines. That is what I was coming to on the general subsidy question. It seems to me if such a plan were adopted it would have to be applied in such a way that each vessel would get a proper showing, whether a small tramp or a slow tramp, based, I suppose, on the speed and the number of tons she could carry.

If it was done at all, I should think it should be done in that way, because there is where the business comes from. It is not the few lines running out of a few ports that make the business of the world. It is the hundreds and hundreds of tramps. We ought to have American ships that could go anywhere through the canal, when it is built, and be in position to take freight for all over the world, and to do it as cheaply as any other vessel. Otherwise we will not get the business.

Senator MALLORY. In order to build up trade you must have means of communication with the country with which you wish to trade.

Mr. HOWE. Yes, sir.

Senator MALLORY. That is a necessary prerequisite.

Mr. HOWE. But the trade of the American ship would not amount to so much after you brought her here. She might go from here to

Liverpool and then through the Suez Canal to the East. The simple fact of a country having trade with this country would not benefit her very much. Take the British ship. We have a British ship in this harbor, and six months from now she may be in Bombay. She takes business wherever it offers. The business she lives on is not English, although it may go to England. The English build and operate those ships so that they can compete wherever they are.

OPPOSED TO PREFERENTIALS.

I think, speaking of the preferential, Mr. Bingham was right. I do not believe it would do any good. We get so little inward cargo.

Senator MALLORY. We certainly get very little now.

Mr. HOWE. We expect to put our products all over the world, and not to take in too much. Luxuries, silks, and such things are likely to come. We import a good deal of mahogany to this port from Cuba. That is bound to come. But I do not think there is much, if any, duty on that.

Mr. BINGHAM. No, sir; not on the logs.

Mr. HOWE. If you put a preferential duty on that you would put it in a worse position than it is now. How would that affect the people who manufacture it in this country? Those are the things that make cargo for a steamer. It is a bulky thing. Take the valuation of the mahogany. Several hundred thousand dollars worth of that would fill a good many steamers, or several steamers. The same quantity of some precious cargo would not fill half of one steamer, I should say.

Mr. BINGHAM. The American ship would get a little preference, as a matter of fact, in handling that article, because there is a duty on mahogany lumber, but not on the logs.

Mr. HOWE. I mentioned mahogany, because that is one of the bulky things. The ship does not look to the value of the stuff; it gets paid according to the weight and measurements. Take the exports of a port like this. We say it is fifteen, and we consider an increase of five million in valuation a big increase. But that five millions, if it was cotton, would mean only a few cargoes. It is when you come to look at the bulk of the stuff shipped that the vessel is affected. We do not import cargoes like coal or things of that sort.

Another thing. If a preferential duty were put on it would simply enable American vessels to hold for a higher freight, and the others would have to take lower freights. It might work out, but the trouble is there would not be enough to do much good. It is the outward cargoes. If they could be taxed in some way—if a preferential duty could be given to a vessel loading with cotton or timber—

Senator MALLORY. Unfortunately, we can not do that.

Representative SPIGHT. We have no power to do that.

Senator MALLORY. That is beyond the power of Congress. Is there anything else you would like to suggest?

Mr. HOWE. No, sir; I can not think of anything else at present.

STATEMENT OF JOHN H. CHRISTIE.

Mr. CHRISTIE. I should like to speak a little on American schooners, in which I am interested. At present rates of freight the vessels

are making no money. In the summer time when the English schooners go up north we get a better rate of freight down here. Just as soon as the fall of the year comes, and as soon as those schooners get down this way, freights drop. The consequence is that some of the American schooners are now laid up. There are two or three in Mobile Bay. They can not run at the present rate of freight.

Senator MALLORY. You are interested in schooners in this port?

Mr. CHRISTIE. Yes, sir. I am interested in the *Doris* and the *Nokomis*.

Senator MALLORY. What is their tonnage?

Mr. CHRISTIE. One is 310 and the other 245.

Senator MALLORY. Are they engaged in the foreign trade?

Mr. CHRISTIE. Yes, sir; in the exportation of lumber from here to the West Indies and the Gulf coast.

Senator MALLORY. You say that English schooners come here and compete with you?

Mr. CHRISTIE. They come down from the north.

Mr. BINGHAM. Nova Scotia vessels?

NOVA SCOTIA COMPETITOR.

Mr. CHRISTIE. Nova Scotia vessels. They come down from the north. To cite an instance, take the *Nokomis*. She was 6 years old when we bought her. We paid \$13,000 for her. At the same time we were offered by Nova Scotia people an English vessel not quite a year old for the same price. Again, we were offered a vessel for \$18,000, and her cost was \$25,000. There is a difference of about 30 per cent in price, and then there is a difference, I suppose, of about 50 per cent in feeding the men.

I had an English captain come down here last year who was interested, who came down along with a man by the name of Monroe, who is a builder in Nova Scotia. He wanted to interest some people in taking stock in a vessel he was building up there, about the same size as the *Doris*. He was building her for \$18,000, and he guaranteed me that the vessel, in her food for her sailors, would not cost more than \$40 a month for seven men, and it costs us on an average about \$12.50 a man on an American vessel; and it costs us \$5 a month more for each member of the crew, and the mate costs about \$15 more than what the English pay.

Senator MALLORY. How about the captain?

Mr. CHRISTIE. He guaranteed to give us a captain for \$70. Here it costs from \$80 to \$100 for a captain.

Senator MALLORY. Why is it that you pay more to American sailors sailing out of this port?

Mr. CHRISTIE. Why do we pay more going out of this port?

Senator MALLORY. Yes.

LOW BRITISH WAGES.

Mr. CHRISTIE. I suppose if the English schooner was to ship her men out of this port she would have to pay the same, but they generally ship their men up in Nova Scotia before they leave, and sign them for three years, and sometimes when they come down here and the men leave the vessel and leave what is coming to them they can

not collect it. The ship gets the benefit of it. With our sailors it is different; we just ship them for the voyage. We have to pay them off as soon as they reach an American port.

Senator MALLORY. Is that the general rule?

Mr. CHRISTIE. Yes, sir.

Senator MALLORY. It is only for the voyage?

Mr. CHRISTIE. Yes, sir; in the schooners of which I am speaking.

Senator MARTIN. You could adopt the other plan if you chose?

Mr. CHRISTIE. I do not know whether the law would allow us to sign a man for three years.

Senator MALLORY. Yes; I think the law on that subject is very liberal.

Mr. CHRISTIE. Take the *Doris* last year. She did not pay her insurance and interest on the investment. She paid no interest at all and went in debt on the insurance. She is a brand-new vessel.

Senator MALLORY. How about the item of taxation, to which Mr. Bingham alluded? What have you to say about it?

Mr. CHRISTIE. I think an exemption would help some. The *Nokomis* is assessed for \$10,000 here, and she has never been in the port of Pensacola.

Senator MARTIN. What is the tax on her for the year—about how much?

Mr. CHRISTIE. In the city I suppose about \$65.

Senator MARTIN. And the State tax?

LIGHTER TAXES.

Mr. CHRISTIE. In the State she is assessed at only \$3,500. It would be about \$25 in the State. Anything like exemption would certainly help the vessel. With small vessels like those, small items accumulate and mount up to a big sum.

Then you have to furnish better food on American vessels than they furnish on English vessels.

Senator MALLORY. How about the accommodations aboard ship?

Mr. CHRISTIE. Our accommodations are better.

Senator MARTIN. Is not the service better? Do you not get better work?

Mr. CHRISTIE. I do not know that there is any difference in the work. I do not think there is.

Senator MARTIN. Do you have as many men aboard as a foreign vessel would have in the same service?

Mr. CHRISTIE. Yes, sir; we have about the same number of men.

Senator MALLORY. I do not think there is anything in the law to prevent you from shipping your men for any stated period.

Mr. CHRISTIE. It would not be of any advantage to us. The English vessel is shipping men for three years. If her men run away after they have been a year on board, whatever balance is due them would be forfeited.

Mr. STILLMAN. The American law requires American seamen to be paid off before a shipping commissioner whenever they come to an American port.

Senator MALLORY. They have to be paid when it is due them, but they are still held by their contract. That is my recollection of the law.

Mr. AVERY. I think that is the fact. I do not think there is any limitation.

Senator MALLORY. I was looking at it yesterday, and I am pretty certain you can ship seamen for any length of time.

Representative SPIGHT. Have you any suggestion to make as to the best method for rebuilding our shipping interest?

Mr. CHRISTIE. I do not know. I do not think I am sufficiently versed in the shipping business to make suggestions. There is something radically wrong, whatever it is. Foreign ships have the advantage to us Americans.

SUBSIDY OR DUTY.

Representative SPIGHT. You have not thought about the remedy?

Mr. CHRISTIE. Not unless the United States would subsidize its vessels, or, as Mr. Mallory suggested to Mr. Bingham, if the United States Government would reduce the tariff on cargoes when imported in American vessels. I suppose that would help to some extent on goods carried in American bottoms. It would give the shipper a chance to pay a better rate of freight to the American vessel. That, however, would not affect the schooner, because it very seldom brings a return cargo.

Senator MALLORY. The law on that subject is this:

"A master of a vessel in the foreign trade may engage a seaman at any port in the United States, in the manner provided by law, to serve on a voyage to any port, or for the round trip from and to the port of departure, or for a definite time, whatever the destination. The master of a vessel making regular and stated trips between the United States and a foreign country may engage a seaman for one or more round trips, or for a definite time, or on the return of said vessel to the United States may reship such seaman for another voyage in the same vessel, in the manner provided by law, without the payment of additional fees to any officer for such reshipment or reengagement."

That is the present law on the subject.

Mr. CHRISTIE. I merely called attention to the fact in that connection that if a sailor on an English vessel runs away and there is any money due him, he forfeits it to the vessel.

Senator MALLORY. Have you ever had any trouble with sailors refusing to go after shipping?

NO TROUBLE WITH SAILORS.

Mr. CHRISTIE. No, sir; I never have had any trouble. We had a little trouble on the last voyage, but that was in Habana with the cook on one of those vessels.

Senator MALLORY. There is no law now, although there used to be one, whereby a sailor who refuses to carry out his contract can be arrested and put aboard ship. That has been repealed and there is no law to-day which authorizes his arrest if he refuses to go aboard ship after he has shipped.

Mr. CHRISTIE. No, sir.

Senator MALLORY. There has been some complaint about that. At some of our larger ports the sailors frequently do that. You have no complaint of that kind to make here?

Mr. CHRISTIE. No; we have no complaint to make, although I believe it would be a good law. If a man has signed for a vessel he ought to be made to go aboard that vessel, for at times it puts the master to a great deal of trouble to go ahead and seek other men.

Senator MALLORY. Undoubtedly very often it does.

Mr. CHRISTIE. I think that would be a good law if it were enforced.

Senator MALLORY. It was in force once.

Mr. CHRISTIE. I know, but it was repealed.

Senator MALLORY. It was in force from time immemorial until recently. Now there is no way by which a shipmaster can require a man to go aboard ship after he has signed if he refuses to go.

Mr. CHRISTIE. No, sir.

Senator MALLORY. Have your vessels been engaged in coastwise commerce at all?

Mr. CHRISTIE. No, sir; not at all. They are all foreign going. They are mostly too small to go in the coastwise trade.

Senator MALLORY. We are much obliged to you, Mr. Christie.

STATEMENT OF CAPT. J. ED. O'BRIEN.

Senator MALLORY. The Commission will be glad to have the views of Captain O'Brien.

Mr. O'BRIEN. I think the members of the Commission know my views.

Senator MALLORY. We know them on the pilot question.

Mr. O'BRIEN. That is a very essential and important part of commerce, in my opinion, anyway.

IN FAVOR OF SUBSIDY.

I believe in a subsidy. I was in favor of the Hanna-Payne bill, in part. I did not think that it benefited the small vessels or freight carriers enough. I am really partial to the smaller vessels. I think the trend of our Government, in the last twenty years, at least, has been to aid the larger and stronger parts of American commerce to the detriment of the smaller and weaker. I think the coastwise vessels are pretty well protected already, and I do not think it would be wise to adopt some of the present or coming recommendations of the Commissioner of Navigation in that respect. I have not seen his recommendations, but I understand he is going to recommend more sailors for American schooners and barkentines and brigs, the smaller class of vessels. Some of them are pretty large nowadays. They build them of 1,700 or 1,800 tons. But it would be a hardship on the smaller class of vessels to increase the number of the crews on those vessels. I refer to such vessels, for instance, as Mr. Christie is interested in. It would also be a hardship on the larger ones, but more so on the smaller ones.

I think the owners will always put a sufficient number of men on them, for their own protection, to handle sails in an emergency, etc.

Representative SPIGHT. Is there any necessity for an increase in the number?

Mr. O'BRIEN. Not that I know of. I think if there were, the vessel owner, for his own protection, would increase the number. I think

that that would have a tendency to benefit the coastwise steamer to the detriment of the coastwise sailing vessels. I do not know whether my idea of a subsidy is practicable or not, as I do not know anything about the law on the subject, and it would require an expert to get up the arithmetical end of it. This suggestion has been made to the Commission, no doubt, before. It is not original with me. I think that all vessels coming foreign should be taxed so much a ton—say, 50 cents a ton—and that that fund should go toward subsidizing the American end of that commerce.

Senator MALLORY. That would involve the same objection, or, at least, one of the objections urged against discriminating duties.

• Mr. O'BRIEN. Yes, sir; that is, the abrogation of the treaties.

Senator MALLORY. It would involve the abrogation of some thirty-odd treaties.

NOT TO BE DREADED.

Mr. O'BRIEN. Yes. Of course you gentlemen know all about that, and I know very little about it; but in discussing it from time to time it has occurred to me that the abrogation of those treaties is not as big a thing as it appears to be to the average American citizen who is interested enough in the upbuilding of our merchant marine to discuss it. They look at it as a very dangerous proposition and think that it would bring retaliation from different countries on the tariff, etc.

I heard Mr. Spight make the remark this morning—he said he did not want to discuss the question until the report was made—that as such a policy would affect the rank and file of the people in the different foreign countries, he did not think they would be anxious to retaliate. So I do not think the talk about the abrogation of those treaties as a detriment to the upbuilding of our merchant marine is well founded. However, I am not posted on that subject. It is merely my idea which I am giving you.

CONGRESS MUST ACT.

The American shipping, as Mr. Christie has stated, is surrounded by some kind of a wrong. It was a very sensible move in Congress to have this Commission appointed. I hope Congress will do something to aid the merchant marine. What that something will be I do not know. Whether my ideas are correct or not, I do not know; but I do know that it needs some aid from this Government. I understand that the fact that the four vessels were built or put under the American flag on the American Line or the International Line was so objectionable to the British owners of that class of vessels that they immediately gave aid to their vessels in competition with those four large liners.

So far as the American sailor is concerned, he is the best paid, best housed, and best fed man on the waters. There is no doubt on earth about that. In my business as a pilot, in years gone by, we had occasion to go aboard the ships of all nations, and whenever we got to leeward with a vessel and had to be out any length of time we would prefer to be on an American vessel, not only on account of the congeniality of intercourse with men speaking our own language, but because we lived better and we had better quarters.

PROTECTED ENOUGH.

Of course you may find exceptions, but the law has been amended from time to time, so that the American sailor and the American coastwise vessel, in my opinion, are protected enough. For instance, as I stated to-day to Senator Martin, I heard Mr. Clyde make the point before the Merchant Marine Committee in Washington that if at the same pier in New York City there were a Clyde boat on one side and a foreign vessel of the same dimensions on the other, and the Clyde boat wanted a stoker or a fireman and the other vessel wanted one, and the wages, according to the union, were \$30 on the Clyde boat, and \$25 was offered to the man who wanted the job, he would refuse it and go aboard of the other vessel for less money than he refused to accept on the American vessel. Mr. Clyde made that assertion before the Marine Committee. It is a matter of record in the case. When he was asked the question why that was so, he did not know, and I told him why it was so.

I told him what I thought was the reason, and it is this, that the American sailor belongs to the union. I believe in unions. I want to make a record of that. I believe in high wages to our sailors, and I believe in high freights to our vessels; I believe in the American vessel being aided. But that man would have been ostracized from his union had he gone aboard that American vessel for less wages than the scale of wages set forth by the union.

Senator MALLORY. Do you not think that that accounts for some of the discrepancies on that point; that in some ports, the larger ones, they have well-organized unions, while in the smaller ports they have no unions at all?

Mr. O'BRIEN. Yes, sir; that accounts for it. Wherever there is no union the men are demoralized. You do not get as good a class of men, although probably you get them a little more reasonably or a little more cheaply.

STATEMENT OF JOHN M. ROBERTS.

Senator MALLORY. Mr. Roberts, your name has been given to me as that of a gentleman who could throw some light on this question from your point of view.

Mr. ROBERTS. I do not think I can throw any light on the subject. I might have brought some facts if I had been earlier advised of your meeting. I did not learn of the meeting until 10 o'clock. But since hearing the remarks made I have gone to the telephone and obtained a few facts in a general way.

Senator MALLORY. What is your business?

Mr. ROBERTS. I am general agent for the Gulf Transit Company, which owns three steamers, two flying the British flag and one the American flag.

Senator MALLORY. Sailing out of Pensacola?

Mr. ROBERTS. Yes, sir; usually to Tampico, but they are run, of course, more particularly for freight over the Louisville and Nashville Railroad than in a general way.

I thought it might be of some interest to you—and that is about all I can say—to compare these vessels.

The *Pensacola* is an American ship of 1,069 tons.

Senator MALLORY. Net?

WAGE COMPARISONS.

Mr. ROBERTS. Net registered tonnage. She carries a crew of 21. The master of the *Pensacola* gets \$150.

Senator MALLORY. A month?

Mr. ROBERTS. A month. And the other two get \$175, but those wages paid to British captains are higher than the wages that most British captains get. I am sure of that. That is because they are employed by Americans, and we have to bring them from England over here.

Senator MALLORY. Those two vessels are larger than the *Pensacola*?

Mr. ROBERTS. One of the others is 2,967 tons——

Senator MALLORY. Give the names.

Mr. ROBERTS. The *August Belmont*, 2,967 tons net, and the *E. O. Saltmarsh*, 2,319. That is another way to account for the increased pay on the *Belmont* over the *Pensacola*. She is nearly three times as large. The mate on the *Pensacola* gets \$75 a month. On the other two ships \$60. The second mate on the *Pensacola* gets \$50 and on the other two \$40. The seamen on the *Pensacola* get \$25 per month and on the *Belmont* \$17.50.

Senator MALLORY. How about the *Saltmarsh*?

Mr. ROBERTS. The *Belmont* and the *Saltmarsh* are the same.

The engineer on the *Pensacola* gets \$125 and on the others \$150. Of course the pay of the officers is governed to a large extent by the size of the ships. Those two ships, I believe, although I am not sure, were built in England because the shipyards in this country were overworked, and we could not get them in time to fill a contract held by the railroad at Tampico.

But that goes back to the suggestion made by Mr. Howe in regard to being able to buy ships and change the flag until we get the shipbuilders or the owners to build in this country. I will say that if we are short an officer on any of these British ships, we have to send to England for him unless we can pick him up here. Our actual experience has been that we can not find them here. In the last six months we have had to bring from England, I suppose, no less than three or four officers.

CHINESE CREWS.

Senator MALLORY. Did not the *August Belmont* for a while have a Chinese crew?

Mr. ROBERTS. Yes, sir.

Senator MALLORY. How long did she have a Chinese crew?

Mr. ROBERTS. She has a few Chinamen left. She had a Chinese crew for a year.

Senator MALLORY. Do you know what wages were paid the Chinamen?

Mr. ROBERTS. They were paid the wages I gave to you.

Senator MALLORY. She was built in England expressly for this trade?

Mr. ROBERTS. Yes, sir; expressly for this trade and expressly for this company.

Representative SPIGHT. Did it cost as much to feed the Chinamen as the others?

Mr. ROBERTS. No, sir.

Representative SEIGHT. About how much is the difference? [A pause.] I do not ask for the exact figures.

Mr. ROBERTS. I know the difference in the total is more now. The total now is more than it was. I have not figured it out exactly. The Chinamen lived principally on rice.

Senator MALLORY. How about the accommodations on the *Belmont* and the *Saltmarsh* as compared with the accommodations for seamen on the *Pensacola*?

Mr. ROBERTS. They are a little better, being more commodious.

Senator MALLORY. They are bigger ships?

Mr. ROBERTS. They are bigger ships.

Senator MALLORY. They have more room?

Mr. ROBERTS. Yes, sir; and have more room.

Senator MARTIN. I may not have gathered your figures very accurately, but it did not seem to me that there was any very material difference on the average in the cost of maintaining the different ships.

Mr. ROBERTS. No, sir. But you must not overlook the difference in the size of the vessels. I was comparing a vessel of 1,069 tons with a vessel of nearly 3,000 tons.

Senator MARTIN. What I am leading up to is this: What is your inducement for keeping those two larger vessels under the British flag?

Mr. ROBERTS. They were built in England.

Senator MARTIN. Oh, yes; I see.

WORLD LIKE AMERICAN FLAG.

Mr. ROBERTS. We should like to change them to the American flag if we could.

Senator MARTIN. As I understand, you would just as soon run them under the American flag?

Mr. ROBERTS. Yes, sir.

Senator MARTIN. If you could give them an American register, there is nothing in the difference in the cost of running them under the two flags that would control your action in favor of the British flag. It is simply because they were built abroad?

Mr. ROBERTS. They were built abroad, and the crews engaged abroad, and the English shipowners do not pay as much as Americans.

Senator MARTIN. But the difference in the cost of the crews is not enough to induce you to fly the English flag?

Mr. ROBERTS. Oh, no.

Senator MARTIN. You would rather have those vessels, notwithstanding any difference that may be supposed to exist in the cost of running them, under the American than under the British flag?

Mr. ROBERTS. I think we would rather have them for this reason. If they were running under the American flag we could charter the boats between any two ports in America. If we had a large contract for coal from Galveston, we could not use the vessels for that purpose.

Senator MARTIN. What sort of stuff are you carrying chiefly?

Mr. ROBERTS. Coal almost entirely.

Senator MARTIN. Do the ships bring back return cargoes?

Mr. ROBERTS. No, sir.

Senator MARTIN. They come back empty?

Mr. ROBERTS. Yes, sir; they come back empty.

Representative SPIGHT. You say you would rather run them under the American flag.

Mr. ROBERTS. I think our company would prefer it.

Representative SPIGHT. And be willing to be excluded from the coastwise trade in doing that?

Senator MALLORY. They would then be admitted to the coastwise trade.

Representative SPIGHT. I know; but they are engaged now only in the foreign trade.

Mr. ROBERTS. Yes, sir.

NO ADVANTAGE.

Representative SPIGHT. Would you be willing to run them in the foreign trade under the American flag and be excluded from the coastwise trade; do the same business you are doing now?

Mr. ROBERTS. There would no advantage in that.

Representative SPIGHT. I know; that is what I want to get at. You would not be willing to exchange flags unless the vessels were admitted to the coastwise trade?

Mr. ROBERTS. No, sir; I do not think so.

Senator MALLORY. Is it not a fact that if you put them under the American flag you would have to pay the seamen higher wages and the officers fully as high wages as you are paying them now?

Mr. ROBERTS. I do not think you would have to pay the crews that are on them now any more, but as you engaged men from time to time I think you would have to.

Senator MALLORY. I mean if you were to engage them here.

Mr. ROBERTS. Yes, sir; I think you would.

Senator MALLORY. In other words, you would have to pay them relatively the same wages as you pay on the *Pensacola*?

Mr. ROBERTS. Yes, sir.

Senator MALLORY. That would make a considerable difference in the operating expenses of the ships?

Mr. ROBERTS. Not a great deal, because the crew is not very large. I think the *Belmont* has about 35.

Senator MALLORY. Thirty-five?

Mr. ROBERTS. Thirty-five men.

Senator MALLORY. It would amount, so far as the crew is concerned, to at least \$5 per man per month?

Mr. ROBERTS. Yes, sir; not \$5 for all of them.

Senator MALLORY. I am speaking of the average.

Mr. ROBERTS. That is just the seamen.

Senator MALLORY. I am speaking of the average.

Mr. ROBERTS. The greatest advantage would be if we were short an officer we would not have to send to England to get him.

NO TROUBLE AS TO OFFICERS.

Senator MALLORY. Do you find any trouble in getting officers for your American ship?

Mr. ROBERTS. No, sir.

Senator MALLORY. Whenever you lose a captain or a mate you can find one?

Mr. ROBERTS. We have very little trouble indeed; scarcely any. The captains are very well pleased on the *Pensacola*. That is the only vessel I have had any experience with. We never have had any trouble.

In discussing wages, however, I may say we are agents for a great many steamships that come in here, and I have not found an English or a foreign captain who has gotten anything like as much as we pay.

Senator MARTIN. You find no opportunity to get a return cargo?

Mr. ROBERTS. Not from that port. We could probably get return by going down to Progreso and those points, but the time lost and the low rates of freight would not justify it.

Mr. AVERY. Why were those ships built in Europe?

Mr. ROBERTS. My information, although I am not positive, is that our shipyards were so busy doing other work that we could not get the ships in the time we required them.

Senator MALLORY. You had a large contract with the Mexican Central Railroad?

Mr. ROBERTS. A large contract to deliver so much coal within a given time. We had to get the ships and get them quickly. The *Salt-marsh* we had to get very quickly. We sent a man to England, and he found this ship almost completed and bought her.

Mr. HOWE. That rather brings up the point I mentioned about ordering ships. Time is a great element.

Senator MARTIN. The running of these ships between Pensacola and Tampico it seems has not developed any trade between the two countries, except the mere outgoing freight.

NO RETURN CARGO.

Mr. ROBERTS. No imports.

Senator MARTIN. It has not led to anything else.

Mr. ROBERTS. It has led to nothing else. We got her for that purpose.

Senator MALLORY. Are there any imports at all from Tampico to this port?

Mr. HOWE. We have a vessel coming here with several thousand tons of sisal from Mexico.

Mr. ROBERTS. Sisal takes up a great deal of room, and the rate is low, and loading at Tampico would be slow. So our vessels had better come back empty.

Senator MALLORY. Do you think, Mr. Roberts, that a line between this point and Tampico would pay under any circumstances at this time?

Mr. ROBERTS. For miscellaneous cargo?

Senator MALLORY. Yes.

Mr. ROBERTS. I do not think it would.

Senator MALLORY. To run ships between the two ports with the expectation of building up trade?

Mr. ROBERTS. I should not think it would pay for some time to come, anyway.

A SUBSIDIZED LINE WOULD PAY.

You asked a question just now about a subsidized line to Rio Janeiro and Buenos Ayres. It seems to me that could be made to pay.

Senator MALLORY. There would probably be importations by such a line.

Mr. ROBERTS. I think there would be, and I think there would be a good many exportations.

Senator MALLORY. I have no doubt about the exportations. It is the importing that causes the trouble, which is necessary in order to keep our vessels busy both ways.

Mr. HOWE. Take the matter of the mails. It takes some forty or fifty days to get a letter from Buenos Ayres or Rio, and under those circumstances we ought to get it in twenty-five days or less.

Senator MALLORY. Now the mail first goes to England?

Mr. HOWE. Yes, or to Hamburg. We have a good deal of business from here with Buenos Ayres and Rio. We are in correspondence with those people, and that is the time the letters take to come here.

Senator MALLORY. Mr. Roberts, have you any other suggestions to make?

Mr. ROBERTS. No, sir.

Senator MALLORY. We are much obliged to you.

ADDITIONAL STATEMENT OF F. F. BINGHAM.

Senator MALLORY. Does any other gentleman desire to be heard?

Mr. BINGHAM. There is one point about which I should like to say a word. You spoke about American ships being permitted to ship men for a longer period. That would not be of any use to us in Pensacola. A man would simply laugh at you if you proposed to hire him for a long period.

Senator MALLORY. He would not ship?

Mr. BINGHAM. No, sir; he would not think of it.

Senator MALLORY. You think that would be the case generally?

Mr. BINGHAM. At Pensacola at least.

Senator MALLORY. And at most of the Gulf ports?

Mr. BINGHAM. Yes, sir; I believe it would.

There is another point. If you could recommend in any way the shortening up of the method of shipping American sailors, I think it would facilitate matters. It is a big job to bring a crew before the commissioner or have the commissioner go aboard, and it is a slow job. It takes a day to clear an American vessel from here to the West Indies, for instance—a day just to do the preliminaries, the office work.

Senator MALLORY. What would you suggest in the way of shortening it?

Mr. BINGHAM. I do not know.

You could not shorten it without amending some of the regulations with regard to bringing the shipping commissioner and the men together. You can get the shipping commissioner to go aboard the vessel by furnishing a boat, by supplying some way to get aboard. But you might as well bring the crew ashore. That is the only point I think of.

CLOSING ADDRESS OF SENATOR MALLORY.

Senator MALLORY. I am sorry we could not hear from Mr. Wells, who expected to give us some views on the general subject, and also on our local business, but I understand he is so engaged in other matters that he can not be here. The same is true of Mr. Merritt.

Mr. AVERY. The board of pilot commissioners is holding a session.

Senator MALLORY. If there is no other gentleman who desires to be heard, the Commission will now close its hearing.

I will say on behalf of the Commission that we are very much obliged to the chamber of commerce for its courtesy in extending us an invitation to use its room, and also to those gentlemen who have appeared before us and favored us with their views. The object of the subcommission, as I have stated, is simply to get the views of other people, without being colored at all by what our own individual views may be, and to report them to the whole Commission, and out of the combined testimony that has been taken all over the country it is possible we may be able to devise something which will reach the evil. I do not know that we will, but we shall certainly make the effort to do so.

REMARKS OF MR. AVERY.

Mr. AVERY. Mr. Chairman and gentlemen, we are very glad indeed to have had the pleasure of having you with us. If there is anything more that can be done to assist you before you leave, let me or the secretary know, and we shall be very glad indeed to accommodate you in any way possible. We are glad to have had you with us.

Thereupon [at 12 o'clock and 30 minutes p. m.] the subcommission adjourned.

HEARINGS AT BRUNSWICK.

BRUNSWICK, GA., *Thursday, November 17, 1904.*

The subcommission met at 2.30 o'clock p. m.

Present: Senator Martin and Representative Spight.

ADDRESS OF HON. WILLIAM GORDON BRANTLEY,

Representative in Congress from the Eleventh District of Georgia.

Representative BRANTLEY. Gentlemen, we have with us to-day a number of distinguished gentlemen. We have with us representative citizens of some of our neighboring cities, and we have with us a subcommission of the Merchant Marine Commission, composed of a distinguished Senator of the United States and a distinguished Representative in Congress.

The purpose of this meeting, I understand, is to obtain expressions of opinion on the part of the people who are here present as to the best method of building up our merchant marine.

With respect to the distinguished gentlemen who are here to listen to you, I may say that if we could reverse the condition of things and let them tell us what they know and what they have learned as to the best method of developing the American merchant marine, we would all get a great deal of information. But I understand that

their mission here is to listen and simply to report what you have to say and not to inform you.

I take a great deal of pleasure, gentlemen, in presenting to you Senator Martin, of Virginia, and Representative Spight, of Mississippi. [Applause.]

RESPONSE OF SENATOR MARTIN.

Senator MARTIN. Gentlemen, we are a little late, and I shall consume no time unnecessarily. We thank you for your attendance here and hope you may be able to give us some light on this very important subject. I will read a brief extract from the act of Congress under which the Commission was created, so that those who address the subcommission may know exactly the scope of the investigation:

"SEC. 2. That it shall be the duty of this Commission to investigate and to report to the Congress on the first day of its next session what legislation, if any, is desirable for the development of the American merchant marine and American commerce, and also what change, or changes, if any, should be made in existing laws relating to the treatment, comfort, and safety of seamen, in order to make more attractive the seafaring calling in the American merchant service.

"SEC. 3. That the Commission shall give reasonable time for hearings, if deemed necessary, and if necessary it may appoint a subcommission or subcommissions of its own members to make investigation in any part of the United States."

We are here as a subcommission of the Commission to investigate this very important subject, and whatever views may be given us will be taken down by the stenographer and reported to Congress along with our report, with a view to finding some solution, if possible, of this very complicated problem.

We shall be very glad to hear from you now, and I suppose the chairman of the local committee has a list of those who are willing to present their views, and we will rely upon him.

STATEMENT OF COLONEL C. P. GOODYEAR.

Mr. GOODYEAR. Mr. Chairman and gentlemen of the Commission, I was made chairman of the board of trade committee having charge of the arrangements in relation to this meeting to-day. The committee thought it desirable that there should be an expression from myself as chairman, and from another gentleman on the committee who has been for a large portion of his life a shipmaster, and who is now the representative of the Mallory Line plying between here and New York, and of the Clyde Line, plying between here and Boston—Captain Tupper. That was determined upon, not with a view to monopolizing this meeting at all upon the part of our board of trade, but as giving the individual views of myself and of Captain Tupper, with a view to evoking discussion upon this important subject.

I have prepared a paper for the purpose of condensation, and I will proceed to read it:

Mr. Chairman and gentlemen of the Commission: In presentation of the views which follow, I trust it will be understood that these are

my individual views, and not in any sense the views of the committee of the board of trade, of which I am chairman. In creating that committee of eleven I endeavored to place upon it men of divergent views as to the methods of revival of the merchant marine.

THE COUNTRY A UNIT.

I think it may be safely assumed that all American citizens who have given the subject of the revival of the merchant marine of the United States consideration, are a unit for its revival by some method as an emergent necessity.

The creation of this nonpartisan Commission by Congress seems a complete demonstration of the universally favorable sentiment upon this subject. Who does not look back upon the history of our country's achievements upon the ocean in foreign trade, in the finest and fastest ships which sailed the seas before the civil war, with pride and satisfaction? Who at any of our great ports now sees more than 90 per cent of our exports and imports shipped under a foreign flag without humiliation?

With an internal and external commerce growing as in none of the other great countries of the world, we have neglected this vital and essential part of a great national development, shut out from our people the wide and glorious fields of adventure upon the world's oceans and seas, and are paying some \$200,000,000 per year directly to foreign ships for the carriage of our commerce.

We talk proudly of our \$400,000,000 balance of trade in our favor, and putting that in one national pocket, we take out of another \$200,000,000 and pay it back in freights.

Shall the remedy be by subsidies, under whatever name, by discriminating duties, or by both, or by purchase of ships in the open market, or is there some other method which will prove effective?

THERE MUST BE NATIONAL AID.

Speaking for myself only, I think it clear that the difference in the cost of constructing and running an American ship has been proven by the hearings before the committees of Congress and will compel for a time aid from the Government, either by subsidy upon tonnage, navigating bounties, and mail contracts, or by reduction of duties to the American ship, or by all of these, if ships are to be built in American shipyards and officered and manned by Americans largely.

I think it wise statesmanship to adopt a policy which will force their construction in American shipyards, of American material, and by American artisans, superintended by American brains.

That nation is great which is independent, powerful which owns its shipyards ready for great emergencies. If the United Kingdom has gained supremacy upon the seas by governmental aid continued through a period of more than a hundred years, if Germany and France since 1873, have largely increased their tonnage and their commerce by the same means under whatever name, I for one am willing, nay anxious, that we should follow their example.

WHY NOT DO THE SAME.

If foreign governments are paying yearly a sum little less than \$30,000,000 in postal subsidies, subventions, construction and navigation bounties, naval reserve retainers, and by other direct aid to their ships, why should not we follow their example?

If the United Kingdom has paid the Cunard Line from 1839 to date, in some form about \$500,000 per year, a total for the sixty-five years of about \$32,500,000; if she closed a contract only last year with this line for two great ships of 24½ knots speed whereby she loaned at 2¾ per cent payable in twenty years \$13,000,000 for their construction; if she raised that money on bonds at 3 per cent interest; if she contracted a subvention to these two ships of \$750,000 per year for the twenty years, and a \$340,000 mail contract, surely we are not likely to adopt so liberal a policy but may wisely consider a policy upon some such lines of aid.

It is perhaps not generally known by the younger men of the South, that many of the ablest men of this section before the war earnestly advocated aid in some form, even by subsidy, to American shipping to an extent which amounted to a definite Southern policy.

As illustrative of the importance of this matter to our ports, there are but twenty-four deep-water ports with channel depth of 25 feet and upward on the Pacific, Gulf, and Atlantic coasts. Of these eleven are southern ports. In the period to 1950 there is no reasonable prospect of an increase to more than thirty-five of such ports with any thinkable expenditure for improvement for all of our coasts.

These ports serve a total commerce of \$2,500,000,000. A population of 81,000,000 people. A population which, if it increases in normal proportions with recent census periods, will be 95,000,000 in 1910, 120,000,000 in 1920, 150,000,000 in 1930, 187,500,000 in 1940, 234,000,000 in 1950.

At normal rates of increase of our foreign trade, if continued, we have reason to believe that the increase will be not less than to \$3,250,000,000 by 1920, not less than to \$4,500,000,000 by 1930, not less than to \$5,000,500,000 by 1940, not less than to \$7,500,000,000 by 1950. Our payment on our freights to foreign ships will increase in like proportions if we continue our present policy.

THE SOUTH THE LEADER.

The South is increasing her agricultural, manufacturing, and mining products by percentages largely excelling that of the entire country, and has been doing so from 1880 to date, with the industry as yet in its infancy. Her surplus for export increases with great rapidity. She is rapidly growing rich enough to import direct upon a large scale. Her eleven deep-water ports are nearer the Panama Canal than any others in the country.

In Central and South America, Mexico, the West Indies, of a total trade of \$1,280,000,000 we have but \$400,000,000. There is \$880,000,000 left for us to get; ours by right of proximity; ours by the fact that for 44,000,000 of our people our South Atlantic ports have vast advantages in distance for receipt of freights from the interior distribution of imports to it, and that the Gulf and South Atlantic ports

have such advantage for 65,000,000 of the people of the United States; advantages of easier railroad grades, freedom from ice and snow blockades.

We have ample facilities for shipbuilding at our deep-water ports, ample material in the mountains and valleys of the South for the construction of our ships.

THE SOUTH NEEDS SHIPS.

The South needs a revival of our merchant marine by the stimulus of governmental aid in some, perhaps in many, forms—in mail contracts upon a basis which will enable her to establish lines to the West Indies, to South and Central America, and Mexico; when the Panama Canal is completed to the Orient.

When our flag again floats over our foreign commerce, when we supplement the work of our consuls and consular agents with vigorous and intelligent American ship masters in every port, an army of men interested in and working for American commerce, our commerce will grow by leaps and bounds. We will have a great unarmed navy ready to arm in emergency and an army of skilled artisans working in our shipyards, a tremendous impulse given to our steel and iron productions; a well-rounded and harmonious development in all lines of effort.

The impression prevails among many people that if the policy of aid to steamship lines by any of the methods named is pursued by the Government it commits the Government to permanent governmental aid to such lines, without subsequent reduction.

WHAT AID HAS DONE.

In the contract made by the British Government with the Cunard Line last year, heretofore referred to, it was provided that the two ships should be built in shipyards of the United Kingdom, a complete departure upon the part of the British Government from the policy of granting the right to build anywhere—in other words, free ships—and that departure was due to the fear that unless such a provision was inserted in the contract these ships would be built in German shipyards. This is a complete demonstration that the policy of aid by the Government to build up a great merchant marine has made Germany, since 1873, a formidable competitor in price of construction of ships with the United Kingdom, and a demonstration that if we adopt the policy of governmental aid in the revival of our merchant marine the cost of construction of ships will gradually be reduced.

I do not believe the American people desire to reduce the extra cost of sailing an American ship by forcing the adoption of the low rate of wages and insufficient food furnished on the ships of many foreign nations. This discussion rises infinitely above the plane of partisan politics and policies. It is a great American question. It is the only field of commercial endeavor in which we have failed to surpass the world, the only one in which the older nations far surpass us—the line of effort vital to a maintenance of our ascendancy in the world's commerce. The American people have solved other great questions wisely. I believe they will solve this wisely.

WHY NEGLECT THE SHIP?

The argument is often used that any form of aid to American ships, aid in their construction, by tonnage bounty, navigation bounty, mail contracts, discriminating duties, is in effect a protection of the American ship. Granted; but if it is the policy at least for the time being of the American people to protect American industries, why should not this great and vital element of our prosperity be protected?

This paper, while outlining my personal views upon this great question, is intended so far as may be to invite the fullest expression of all divergent views upon the best method of revival of our merchant marine.

It is well known in this city and in this State that I am a protectionist and have been since childhood. I am a protectionist, but perhaps I am a heretic as a Republican, for I believe in revision. I believe that if an infant industry gets strong and powerful enough to do without protection then the schedules appertaining to that industry ought to be revised. I believe that if the steel trust of this country and the steel business of this country have reached a condition where that industry is no longer an infant it is the right and the duty of the American people to transfer some share of the protection that the Government has given to the steel industry of this country to this industry which has been crippled and crushed. [Applause.]

I believe, further, in another doctrine which the superb Blaine announced and which the lamented McKinley in the last speech he made before he was struck down by the hand of the assassin at Buffalo announced—I believe in the doctrine of reciprocity. I believe that reciprocity is a vital and essential element in the rebuilding of our merchant marine.

FOR FAIR TRADE.

I believe that the history of reciprocity in this country since the first treaty with the Canadian government, along about 1857, which lasted for eleven years, the series of treaties negotiated by that great man, Blaine, in 1891 to 1894, the series of treaties that have been negotiated since by Congress, which went into effect about 1900, the treaty with Cuba, in which reciprocity was adopted, has demonstrated that that should be a great American doctrine—fair trade; and I am for fair trade whether the Republican party is or not. I am for fair trade because it will help to rebuild our merchant marine.

The Cuban treaty went into effect on the 27th of December, 1903. Practically it has been in effect for the first six months of this year; at least that is the period for which we can get reports. Before it went into effect, for the latter half of 1903 there was a loss of \$3,000,000 in the trade of the United States with Cuba. It went into effect practically, as I say, on the 1st of January, 1904, and up to the 30th day of June, 1904, it had increased our business with Cuba \$27,200,000. Such treaties have increased our business with Germany, with France, with Brazil, with the various countries with which the principle has been in force at various periods. In only three or four years of its application once, then again in three or four years of recent application, it has increased the commerce of the United States \$355,000,000. It has become a great American policy, not a partisan policy.

BRUNSWICK'S COMMERCE.

The collector of this port has very kindly prepared a paper in relation to the foreign business done by foreign and American ships in this collection district, which embraces Brunswick and Darien. It is a striking statement:

Month.	Foreign.						American.			
	Tons.	Crew.	Value.	Number of vessels.			Tons.	Crew.	No.	Value.
				Brunswick.	Darien.	Total.				
1903.										
July	18,713	280	\$322,735	10	6	16				
August	16,221	144	396,146	5	6	11				
September	15,482	238	479,110	11	4	15				
October	5,968	99	863,233	7	0	7	510	9	1	3,525
November	9,805	136	1,848,842	6	1	7				
December	16,790	308	1,646,018	16	1	17				
1904.										
January	14,927	248	1,612,563	14	3	17	816	16	2	11,554
February	13,300	219	509,051	7	5	12	594	8	1	6,200
March	16,142	277	444,348	9	8	17				
April	7,415	132	102,228	7	2	9	352	7	1	5,284
May	9,944	167	170,710	7	4	11				
June	9,777	151	254,867	5	3	8				
Total	154,484	2,429	8,649,851	104	43	147	2,272	40	5	26,563

It will be seen that of foreign ships there were 154,484 tons; of American ships, 2,272 tons. In number of ships there were 5 American ships, while there were 147 foreign ships. In value of commerce there was \$8,649,851 in foreign ships and \$26,563 in American ships. The tonnage of American ships was about 1½ per cent; the value carried in American ships was a little more than one-third of 1 per cent; in number of ships there were less than 4 per cent, and in the number of masters there was 1 American master, sailing from the ports of Darien and Brunswick to advertise the commerce of Darien and Brunswick, to 29 foreign shipmasters.

I announced in the outset that a paper had been prepared by a practical shipmaster, Captain Tupper. I will ask Mr. Kay to read his statement.

STATEMENT OF CAPT. M. W. TUPPER.

Mr. W. E. Kay read the statement submitted by Mr. Tupper, as follows:

"To the honorable chairman and members of Commission:

"GENTLEMEN: I have been asked by the chairman of the committee from our board of trade to give my views on what should be done to assist our shipowners and seafaring fraternity throughout the United States to put our merchant marine on a paying and practical basis and help keep a reserve of practical men to officer our war ships in case of war. Twenty years ago I quit going to sea, but have been more or less in touch with the people and shipping business during that time, owning some interests in sailing vessels engaged in the domestic and foreign trade, enough to know that they are to-day the poorest paying property on earth.

"Before coming South to live I resided in a shipbuilding town in Maine, the inhabitants of which were nearly all identified with the vessels built there, the builders and masters usually holding the largest share, the masters taking a small share in every vessel built so far as possible. The balance was owned by the different trades necessary in the construction of a ship, such as the sailmaker, spar maker, rigger, blacksmith, calker, etc. These vessels made money and their captains and officers were men who knew their business from A to Z; many of them filled responsible positions in our Navy during the civil war and the transition from merchant ships to war ships did not phase them in the least, and I have never heard a bad report from any of them. Several of the largest steamships under the American flag are to-day commanded by men from my town, but the incentive for young men to learn this business is gone, and the old custom of the master owning and being agent for his own vessel is about done.

AMERICAN VESSELS DRIVEN OUT.

"The island of Cuba, with which, while I was master of a sailing vessel, we had a good business and where at any time during the sugar season could be found in any of the principal ports from 25 to 100 sailing vessels, 90 per cent of which were under the American flag, to-day is sending its products to this country in foreign bottoms, the American vessel having been gradually but surely driven out of the business by foreign competition.

"These foreign vessels, as you are aware, costing about 30 per cent less to construct, and the same percentage less to operate than the American, are now doing nearly the entire business from the United States that was so prosperous for the class of vessels which I have mentioned.

"I call your attention to the Munson Line of steamers doing business from our Gulf ports and New York to the West Indies, who handle either as owners or charterers the largest fleet of steamers owned or handled by any company to my knowledge in this country, and they have not to-day, so far as I know, one vessel under the American flag. They have taken advantage of the fact that in running to a foreign port they can charter and operate their own steamers under foreign flags very much cheaper than under the American. This condition of affairs represents all our foreign trades.

AGREES WITH NEW YORK EXCHANGE.

"I have listened to arguments in favor of subsidies, mail contracts, etc., for the benefit of our merchant marine, but I must acknowledge that I can not see how either can be made to assist all our shipowners, and I am informed, by those who are in a position to know, that it will be a hard matter, owing to treaties with other governments, to discriminate against their vessels carrying products of our country to other countries than their own, or bringing the products of these countries here, but I am firmly convinced that the recommendations made by the committee from the New York Maritime Exchange on this subject is the only way that our whole merchant marine can be benefited.

"I have been taught, and my observation and experience has corroborated that teaching, that this country of ours can and will do anything to assist any portion of its inhabitants when they are satisfied it is for the well-being of the people and the country. In my opinion the first cost of our ships need not be a matter to legislate over, as the extra cost would be canceled by superior ships and, in most cases, superior men as their officers.

"I note to-day that our American vessels over a certain tonnage must undergo inspection for the protection of life only, and officers of these same vessels, most of whom have held their positions for years, must pass an examination in order to still retain their positions. To this I have no objections, but it seems to me for the protection of life, to include property, and to protect underwriters they should have gone one step further and added load line, known on British ships as "Plimsoll mark," which, in my opinion, would be more along the line for which these laws were intended than all the others put together, for every practical man is well aware that 90 per cent of American vessels loading dead-weight cargoes to-day is overloading his vessel against his own judgment for the sake of the profits he may derive himself or be able to pay his owners, and that when these vessels encounter bad weather they have no buoyancy and are practically unmanageable, and a large proportion of disasters at sea are, in my opinion, attributable to overloading, and I earnestly hope that this Commission will feel they are justified in making recommendations on this subject as well as for protection.

"M. W. TUPPER."

STATEMENT OF W. B. STILLWELL.

Mr. GOODYEAR. Mr. Chairman and gentlemen of the Commission, we have here to-day a representative delegation from our sister city, Savannah. In that delegation we have a gentleman whom Savannah and Brunswick both delight to honor. I hope that the Hon. William B. Stillwell will be asked to address the Commission.

Senator MARTIN. The Commission will be very glad indeed to hear from the gentleman, if he will give us the benefit of his views.

Mr. STILLWELL. Gentlemen, I must confess to be taken by surprise, much to my regret.

I will commence by introducing Savannah in general terms. She is a city that when we had the conflict some forty years ago sent to the front a larger pro rata than any other city in this section and probably in the South. Of that we were proud. But, gentlemen, when the Spanish-American war came on Savannah sent to protect that flag which forty years ago she had fought against a larger number in proportion to her citizenship than any other city in the United States. [Applause.]

Gentlemen, I have lived in that city since the time when we thought 14 and 15 feet of water was fair. We have, through the assistance of the United States Government, attained to 26 feet. We are now asking for 30, and I am free to say in this presence that this is only a prelude for asking for 35, because, gentlemen, the commerce of Savannah, while I have not the details of it with me, is known world-wide.

It has been growing constantly and steadily, and as an evidence of the sturdiness of that commerce and of those people it can be said as a fact that we have never had a bank failure in Savannah.

A GREAT PROBLEM.

Now, gentlemen, as to the question before you, I realize its importance, and I believe all the gentlemen from Savannah look upon it as one of the greatest, if not the greatest, before us to-day to settle. We have settled many great questions in the past. We have no doubt that this one will be settled. My greatest regret to-day is that I am not here fortified by facts and ideas such as you are asking for. I have led a busy life, and this is one of the subjects that I have not had the opportunity to study, but from our section and from this section I am free to say that when the remedy is found, whatever it may be, we are with you to put it through. Let it be one of the things mentioned, two of the matters mentioned, or all combined, we will be with you in heart and soul, for we feel that that subject settled will benefit not only Portland in Maine, but Portland in Oregon, San Francisco, Brunswick, Savannah, and every hamlet in the United States. [Applause.]

Gentlemen, I sincerely regret that I feel to-day like the little colored deacon I heard of and not like the preacher. The colored preacher was preaching, and when he had reached a sort of a climax in his sermon and could not go any further he called out: "Oh, Lord, give us more power, more power! Lord, Oh, Lord, more power, more power!" The little deacon sitting on the back seat said: "Parson, it is not power you need; it is ideas." [Laughter.]

THE NATION HAS THE POWER.

Now, gentlement, I feel, and I do not believe there is a gentleman in this room who does not feel, that the United States, with its flag floating through the twenty-four hours' orbit of the sun, has the power to have a merchant marine; and when they undertake it, they will do it, and I expect to see it accomplished in a way that will be satisfactory to every citizen of the United States, for although we may have minorities, we are a people that bow to majorities. Of that we have had an illustration within a very few days. What country in the world would have gone through what we have gone through in the past two weeks? It might have meant a revolution in many another. Here it created hardly a breeze of wind. The minority bows to the majority, and we are prepared to proceed with our progress.

I regret that I am not able to give you more information. I am somewhat like the old man who killed the squirrel. He went out with the boy shooting, and they found a squirrel in a tree. The boy shot at the squirrel three or four times and missed it. The old man said, "Give me the gun, and I will show you how to kill the squirrel." He took the gun. He was nervous, and the gun was wabbling so that it aimed all over the tree; but finally the old man killed the squirrel. The old man said to the boy, "That is the way to kill a squirrel." The boy said, "I do not see how you could have helped doing it; you shot all over the tree." [Laughter.]

I hope you will be able to hit the bull's-eye, with all the information you have been able to get, and that you will be able to accomplish that in which we are ready to assist you in every way we can in this business, and that is success with honor. [Applause.]

STATEMENT OF SAMUEL A. SWANN.

Mr. GOODYEAR. Mr. Chairman and gentlemen of the Commission, there is a delegation here from Fernandina, Fla., and a member of that delegation, during a long and honorable career, has devoted his life to and has worked for the development of our sister State. I trust we may hear some expression from Mr. Swann, of Fernandina.

Senator MARTIN. We shall be very glad indeed to hear from Mr. Swann.

Mr. SWANN. Mr. Chairman and gentlemen, I told the gentleman who has taken the liberty of asking me to address you that I came from a point where we make no speeches. We work, and we believe in doing things and not talking. I regret exceedingly that I am not familiar with the subject. I came here to get pointers and not to give them. Our talking man is not here. I regret that it falls to me to have anything to say to-day, because I never like to speak on a subject of which I know so little.

I heartily indorse what has been said thus far, and sincerely hope that our section of the State can be relied upon to second earnestly any action that this Commission may decide upon. Our town is one that is not so well known as Brunswick, not so well known as are the grand harbor and port of Savannah, but we are now coming to the fore with possibly more water in our harbor, allowing vessels of larger draft to enter, than almost any other port on the Atlantic coast.

A DEEP CHANNEL.

It may be as well for me to mention here that our port will now admit vessels drawing 28 feet of water. It shows we are now in a position to admit foreign vessels, and much the larger proportion of our merchant marine entrances are foreign. We deal in foreign shipments. Our exports there are growing rapidly not only in lumber, but in phosphate and naval stores and things of that kind, and if any port on the coast is interested in a merchant marine it should be Fernandina.

I regret exceedingly that the Commission could not have met with us there. I think they would have been greatly impressed with the importance of our port; and I can only say in passing that our board of trade took up this subject only within the last day or two, and its members have not familiarized themselves with its importance. We are more impressed, however, with the idea of discriminating duties. We are familiar with the fact that the principal imports to the Southern States, at least, come from South America, Central America, and the West Indian ports, fruit largely preponderating in the shipping that comes to us. I suppose it is very much the same as that which comes to Brunswick. We have no other imports except the simple matter of fertilizers, which are brought in as ballast. We are a great exporting country. Here, as well as in Fernandina, ships come almost empty, and nine-tenths, in fact all, of our foreign-going ships are

entirely owned by foreigners. I will ask Mr. Davis if he knows of any ships plying from our port to foreign ports which are owned in America.

Mr. DAVIS. There is not any that I know of.

Mr. SWANN. They are foreign. It behooves us, if it does any port in the South, to give every possible encouragement to the building of the American merchant marine. I am here for the purpose of getting pointers, and shall be very glad to hear further from gentlemen who are more familiar with the subject than I am.

STATEMENT OF W. S. TYSON.

Mr. GOODYEAR. There is present a gentleman from Savannah, who represents more particularly the Cotton Exchange of Savannah. He was born in this county, and Savannah loves him, and Brunswick always has loved him. We want to hear from W. S. Tyson.

Senator MARTIN. The Commission hopes it may hear from Mr. Tyson.

Mr. TYSON. Mr. Chairman and gentlemen of the Commission, this is a matter in which we are all very much interested, not only Savannah, but a great many other ports. I understood from the chairman that it was to be a meeting where we were to have a perfectly free expression of views. It is absolutely a nonpolitical question in every sense. I believe, Mr. Chairman, that this whole matter with respect to what is going to help our merchant marine has been handicapped from start to finish on account of, possibly it may be a pardonable, political jealousy in Washington. Every time this matter comes up one party lines itself up one way and the other the other. As a matter of fact, it is simply a commercial question. It has long since been settled in Great Britain, a country that has adopted plans which have been highly successful so far as her merchant marine are concerned, that an important principle in the achievement of that end is great intimacy, regardless of political parties, between commercial interests and the Government. It does not make any difference there whether the Conservative or the Liberal party is in power. That is what we will have to settle in Washington. That responsibility rests with our Senators and Representatives in Washington, regardless of party, and it is proper that the business interests of this country shall hold them responsible, when they get there, that they will wrestle with this problem. They are there for that purpose, and nothing is of so much importance to the entire country as the building up of the merchant marine.

MAIL SUBSIDY AND DIFFERENTIAL.

Gentlemen have very ably presented the ship-subsidy side, and the argument in favor of a differential duty with respect to the tariff. A great deal may be said on both sides. So far as mail contracts are concerned, I am strongly in favor of a liberal ship subsidy. But so far as concerns our general merchant marine, a differential tariff seems to fit the bill. We must certainly give some incentive to the American merchant marine in the way of a differential tariff, and I believe this is a matter which has to be adjusted on that plane.

So far as concerns a ship subsidy, when that matter came up in Congress some time ago the lines were very quickly drawn, it being denominated as a Republican measure. It does not make any difference whether it is a Republican or a Democratic measure, the ball should be started in motion. I was very glad Congress appointed this Commission, and I believe some good will come from it. As Mr. Stillwell has very nicely said, Savannah will put her shoulder to the wheel and join with the entire country to find a solution of this troublesome problem which to-day presents itself, and which is of so great importance to the United States. It is really sad to go to the markets south of us and find that the American merchant marine is in the condition it is with respect to the commerce of those countries; and a very strange feature you run against there.

You will find that the exporters in this country, the large exporters, are unwilling to do anything at all in this direction. Inferentially they must be interested in other lines, or they are afraid possibly that if we do have a merchant marine they will encounter greater competition.

I am strongly in favor of any proposition that Congress may adopt which will bring the business men of the country into closer intimacy with the Government, independent of party lines.

STATEMENT OF W. E. KAY.

Mr. GOODYEAR. There is a gentleman here who has been a part of Brunswick, a part of its growth and development since his boyhood, with whom I have never agreed on anything, with one exception, and that is in loving him. I want to hear from W. E. Kay.

Senator MARTIN. The Commission will be delighted to hear from Mr. Kay.

Mr. KAY. Mr. Chairman and gentlemen, I know as little of this question as any gentleman who has spoken. [Laughter.] I would not consume the time of this Commission by discussing the possible growth of our southern ports, for that cuts no figure in the great national question, Shall the American merchant marine be upbuilt, and how? The great fathers of this Republic thought it wise and proper to put upon the statute book, as a part of the American system, restriction upon the introduction into this country of foreign-built vessels, but they failed, when they wrote those laws upon the statute book, to put in a corresponding inducement in the shape of bounties on tonnage or premiums upon mileage or mail subsidies, to counteract what I consider to be the baleful effect of such legislation.

I am speaking only for myself. But how is it possible to have an American merchant marine, all steel-built vessels, in competition with foreign-built vessels, under the varying conditions, as they exist, of higher prices of labor in this country, coupled with a protective system which puts up the price of the material that goes into the ship, and then expect that in the great markets of the world the American ship, built at a higher price, at a higher rate of wages, and at a higher cost of provisioning and operating, can compete with the cheaper-built ship, the cheaper manned, and the cheaper provisioned foreign ship?

WHAT IS THE REMEDY?

What is the remedy that the Congressional wisdom will finally evolve I can not say. But it is true, Mr. Chairman, that either the system devised by the fathers of the Republic is wrong, and that we must have a departure from that system and recognize the principle of protection as entering into the building, construction, manning, and operating of ships, or otherwise the American flag will continue to be as it is now, but an occasional factor upon the sea of commerce.

Mr. Chairman, I have never subscribed to the proposition that in the great competition of trade as between nations the principle of protection can safely be carried to the extent of putting a differential against the American ship and loading it down in competition with the foreign ship. Freight goes in the cheapest bottoms. The Norwegian vessel can come into this port and take naval stores as against the French or the German built vessel, and I am not prepared to say that that is an unmixed evil to the markets of the world. Under our protective system we can not build ships in this country as cheaply as they can be built abroad, and yet we wonder that American ships do not fill the seas. How can we expect that American tonnage will enter foreign ports in competition with the cheaper class of foreign ships unless we put our ships upon the same basis on which the foreigner puts his ships which are in competition with ours?

OPPOSED TO THE PROTECTIVE SYSTEM.

Shall it be that the protective tariff will be removed from the materials that enter into the construction of a ship, or shall we have the privilege of seeing the American flag upon American ships in the oceans of the world by reason of a bounty per mile? Shall a great nation add to the cost of the ship and load down its tonnage charge and charter parties with the extra cost that the protective system of tariff necessarily implies—taxes additional to those under which it is suffering—for the purpose of carrying its cargo in American bottoms?

I, for one, think the people of the United States have been taxed to a point almost beyond endurance in the matter of creating industries, and although it be a discordant note in this assembly, I would not respect myself if I did not declare here and now the sentiment that the competition in commerce upon the seas must be carried on like the competition in every other business. The ship which can carry at the lowest price will get the business. When these people are loaded down with taxes, are additional levies to be put upon them to create an American merchant marine to add to the burden under which they are already suffering? I, for one, would prefer that the German flag should float on the German ship and the English flag on the English ship, and that those ships should carry our cotton from southern ports to the United Kingdom and foreign ports, if for the proud privilege of waving the American flag upon the bottom that is to carry our cotton across the seas each and every humble citizen in this country is to be taxed upon every element of food that enters his mouth, or every element of clothing he puts upon his back, to pay for a bounty upon shipping in order that this country may have a merchant marine.

DESTROY THE TARIFF.

These sentiments are not popular; they may not appeal to my hearers, but the issue is squarely presented to the American people: Shall the Government, in order to attempt to enable our people to compete in a field where business sense tells them they can not compete on ordinary principles, by the exercise of the power of taxation put upon the people such a burden in the shape of bounties or mail subsidies or otherwise as will enable the nation to have its ships float upon the seas, as a result not, Mr. Chairman, of the direct competition between might and worth, but rather because it is a bounty-fed proposition; or will they, on the other hand, in order that equality may be brought about, repeal the protective system that the fathers threw about American shipping, or the protective tariff that makes it almost impossible to build in this country a ship at such a price that it may navigate the seas in contradistinction to foreign vessels?

As I say, the sentiments I am uttering may not appeal to my audience, but the question is there, and it is a practical question. You can not have American-built steel ships under the present system, and you must under the present system have one of two things. You must either enact free shipping laws and let the foreign-built vessel come under the American flag and compete in the markets of the world, or you must tax your people, as you are now taxing them through the protective tariff, the amount of the duty laid upon the steel plates and the steel shapes and everything else that enters into the construction of vessels, and add that and load down the charter-party rates and have the Government pay it in order that we may have American-built vessels flying the American flag.

Representative SPIGHT. Will the gentleman allow me to interrupt him just there?

Mr. KAY. Certainly.

MATERIALS FREE ALREADY.

Representative SPIGHT. Do you know that everything that enters into the construction of a ship for over-sea traffic is now admitted free of duty, or there is a rebate of the duty which amounts to freedom from duty? All materials entering into the construction of a ship which is to engage in the foreign trade is now free from duty, practically.

Mr. KAY. That does not meet the question.

Representative SPIGHT. I am only stating the fact.

Mr. KAY. The materials may, by a system of rebates, be admitted free. You may call it an element entering into the cost, but it is not the whole cost. At last the labor and every other element, except the sheets and plates, that enter into the construction of a vessel are protected by law as against the foreign-built vessel. You must go further. Not only by your legislation must you relieve shipbuilders of the duty upon the raw material, but you must open the construction of vessels to the competition of the whole world if you are going to have it so that the world can bid upon shipping. [Applause.] I am glad to answer the question.

Representative SPIGHT. What is your idea as to the effect of discriminating duties, giving a rebate in favor of the importation of for-

eign material in American vessels as against any vessel except the ships of the country wherein the products originate, so as to encourage foreign shippers to ship in American vessels, because of the cheaper tariff charges?

HANDED DOWN FROM THE FATHERS.

Mr. KAY. At last it comes to the question I have laid down. You must either take off the restrictive shipping laws and meet the world's conditions, or if you are going to maintain them you must extend your protection in one form or another. Now, what are you going to do? You know and I know that if you wipe your restrictive shipping laws off the statute books you would create that condition of equality which would permit American flags to fly upon the sea. You know and I know that every man in this country would hesitate a long time before he would consent to wipe the legislation off the statute books. Why? Because it is a relic of the system which has been handed down to us from our fathers. As I said, I am talking very unpopular utterances, but when you come right down to it the evil that exists has a remedy and nobody wants to apply it. You are not going to repeal the navigation laws of the United States any more than you are going to repeal the pension laws.

Representative SPIGHT. Do I understand you to favor what is known as the free ship policy, admitting foreign-built ships to American registry?

FREE TRADE OR BOUNTY.

Mr. KAY. No, sir; I am saying that we must either do that, or, if you are going to let the restrictive shipping laws stand on your statute books—then you are compelled to carry your protective policy one step further and protect shipping—give a bounty. You must do one or the other, and you can not help yourself. You can not carry the protective principle except double. You can not say, "We will keep this and we will let the other go."

Representative SPIGHT. The policy of which I spoke just now—that of discriminating duties—comprehends a reduction of tariff charges so far as it applies to goods brought in American vessels from foreign countries.

Mr. KAY. I understand; but we are exporters rather than importers, and the balance of trade is in favor of this country.

Representative SPIGHT. That is true.

Mr. KAY. It comes in foreign-built vessels, not in ours.

Representative SPIGHT. If importations in American vessels could come in at a lower rate of duty, it would necessarily give encouragement to foreign shippers to ship in our bottoms.

Mr. KAY. It would to that extent only; but whenever you say to the man to whom you give a less amount of trade than he gives you in return "we will put a penalty upon what is coming in," you are not encouraging shipping.

Representative SPIGHT. If an American ship sailing from one of our ports knows that when it reaches the other shore it will have a return cargo, because of the fact that the goods, when brought in, are admitted at cheaper tariff charges, can not the ship owner afford

to compete with foreign ship owners in carrying our products out of this country?

Mr. KAY. Does he do it to any appreciable extent?

Representative SPIGHT. He can not do it now.

Mr. KAY. Why can he not?

A RETURN CARGO.

Representative SPIGHT. What I am asking you is this: Will not the fact that the shipowner knows he will get a return cargo enable him to carry freight cheaper?

Mr. KAY. It will, but just to that particular extent. We are not talking about isolated cases, but a great system. You can not differentiate and set aside individual cases from the case of the whole nation. The whole case must be treated from the national standpoint, and you can not say that a certain allowance made by Congress will produce a certain result in isolated cases. You must take up the whole proposition and treat it as a whole, and let the whole produce this result or that.

Representative SPIGHT. If the system is adopted it will apply to all American ships.

Mr. KAY. It must be adopted generally to make a difference in the markets of the world. A few ships do not do the commerce of the world. Whenever you get to the point where the system you are now inquiring about and diligently seeking to improve reaches a degree where you have sufficient American bottoms in foreign ports to compete with foreign-built vessels then you can bring about an appreciable result. But with the small percentage of American ships now existing they would soon get filled with the goods on which the differential duty would apply, and then the other ships would get the cargo at full prices.

BUILT UP UNDER DIFFERENTIALS.

Representative SPIGHT. Is it not a fact that under the system of differential duties and tonnage taxes the only merchant marine we ever had that amounted to much was built up?

Mr. KAY. Ah, but you beg the question. You are talking about the day of the sailing ship; and I tell you the day of the sailing vessel is past. We are up against the question of coal consumption and steel-built vessels as against the wooden vessels. It is a fact that to-day out of this port on freight going to New York City they will pay from \$2 to \$3 per thousand feet more to have it carried out of this port in a steamer going to New York than they will upon a schooner, and why? Because time has come to be an important element in American commerce, and the certainty of delivery at a specified time in a certain port is worth something as against the uncertainty of wind and vessels beating against the dangers of navigation. You can not treat this question upon the basis of wooden ships. You might as well discard them from the subject, because they no longer play any important part in the navigation system. It is a question of steam, of the modern-built high-powered vessel carrying the commerce of the world as against the old wind jammer.

Representative SPIGHT. Of course this system would apply as well to steel vessels as to wooden vessels.

Mr. KAY. I grant you, but the laws you refer to had operation mostly before the days of the steel-built vessel.

Representative SPIGHT. That is true.

ON WOODEN SHIPS.

Mr. KAY. And the American flag, of which we hear so much as floating proudly in every port in the world, was the American flag carried on wooden bottoms.

The time never was when the American flag floated over the sea in the steel-built bottom, and when the time came in the evolution of commerce that the steel-built vessel supplanted the wooden-built hull, there was a total and radical change in the conditions, and people who speak of the past condition of our commerce omit to mention the proposition that the proud days when our flag floated upon the commerce of the world was when it was carried in wooden-built vessels. That is where they omit the vital fact in the whole argument. It is no longer a question of trade winds, but it is a question of coal.

Representative SPIGHT. Do I understand you, then, to advocate doing nothing?

Mr. KAY. No, sir.

Representative SPIGHT. What is your policy?

Mr. KAY. My contention is that you must either repeal your restrictive shipping laws and allow foreign-built vessels to come under the American flag, or you must carry your protective system to the point of bounties and mail subsidies, no matter where it may go. You must make shipping free; you must take off the duties on the raw material, and you must go further and open the whole business to the competition of the world, or you must have the bounty system.

Representative SPIGHT. I understand you to be opposed to the bounty system or to subsidies.

Mr. KAY. I am opposed on principle to any system by which any American citizen is made to pay out of his pocket to build up some other system which can not exist without his taxes. [Applause.]

Representative SPIGHT. If I were allowed to express an opinion, I might agree with you on that subject.

Mr. KAY. I think, sir, you ought to agree with me. It does seem to me that the time has come when overtaxation and underproduction of results might well make the American people think what they are getting out of all this.

Representative SPIGHT. You seem to have given a good deal of thought to the matter.

Mr. KAY. I have not given it any thought.

Representative SPIGHT. It was because you had apparently given a good deal of thought to the subject that I asked you the questions I did.

Mr. KAY. Very well.

DESTROY ALL OUR SHIPYARDS.

Representative SPIGHT. You are opposed to the bounty system, and I am not going to say you are wrong about that. Then, you say the

only other alternative is free ships. If we adopt the free-ship policy, will it not result in the destruction of all our shipyards?

Mr. KAY. You have not a shipyard in this country which would exist were it not for the fact that it is upheld by legislation. If you put them on their own merits they would drop out. You understand that this whole American system is built upon the idea of false profits out of the people under guise of legislative protection, and I tell you your shipyards might do much better if put upon their merits and if the capitalization of the companies which own them were deprived of the element of water which enters into their composition. [Applause.]

ADDITIONAL STATEMENT OF COL. C. P. GOODYEAR.

Mr. GOODYEAR. Mr. Chairman and gentlemen, before suggesting that some other gentleman speak, I wish to say a word upon the line of the discussion of my brother Kay. I told you that I never did agree with him upon anything except loving each other.

He draws a comparison between the sailing ship before the war and the steel ship of to-day. I undertake to say that the larger cost of building an American ship of steel and iron is not due to the larger cost of steel and iron in this country than in England or Germany or Austria or Italy or France.

With the steel trust watered, as my friend says, and paying dividends on water, iron and steel to-day are cheaper in the United States than they are in England or Germany or Austria or France, and the material out of which the ship is constructed to-day in the United States is cheaper in American shipyards than it is in the shipyards of the United Kingdom and of Germany—the two great bounty-paying countries of the world. It is not upon the cost of the material that goes into the construction of the ship that the excessive cost of the construction of ships in this country depends. It is upon the cost of American labor; and I do not believe the day is coming in the history of these United States when the people or any considerable number of the people of the United States are going to consent that we shall be put upon the basis of the labor of the United Kingdom or of Germany or of France or of Austria.

WILL PROTECT LABOR.

I believe the laboring men of this country will receive in that department of human labor that differential in favor of the American laboring man that enables him to buy a piano, to have a library in his house, to educate his children in good schools, and which has enabled him to do it throughout the history of this country. Whatever policy we adopt now, we will adopt no policy which builds up shipping with cheap labor; and it is cheap labor that makes the difference in cost as against American ships.

The reason why we need to aid American shipping, outside of the cost of the construction of the ship, is because we furnish better food to the sailor on the American ship than is furnished to the sailor in the foreign ship; because we pay him higher wages; because he is treated decently in the American ship, and he is not in many of the foreign ships. That is the reason why we are compelled to adopt some policy to restore our merchant marine.

THE LESSON OF HISTORY.

History is worth something. If it is worth anything, it is worth something. What is the history of this matter? We lost supremacy upon the seas after the war ended, our commerce having naturally gone under foreign flags for protection. The United Kingdom obtained it by her cheaper labor, by her then but not now cheaper material, and by her system of bounties for sixty-five years. Every line that she sought to establish to develop the commerce of any section of the world has been bounty fed, and the United States of America can learn something from history.

Germany, in 1873, weak and powerless in manufactures, undertook to develop a great commercial marine. She has built up commerce with South America; she has built up commerce with the Orient. She has subsidized her vessels as fast as she built them in her shipyards, and what is the result?

SUBSIDIES REDUCE COST.

It has reduced the cost of building German ships in German shipyards until to-day England, whose proud boast was that no country on this earth could build a ship as cheaply, we see, in her contract with the Cunard Line last year, was compelled to insert a proviso that the thirteen million dollars, which was loaned at 2½ per cent and borrowed at 3 per cent upon her bonds, was to be applied to the building, in United Kingdom shipyards, of those two ships, which were to run 24½ knots. Why? Because Germany by building up her great shipyards, had reduced the cost of the construction of ships, and that is exactly what we will do with American shipyards.

Without regard to whether we revise our tariff as respects this infant that has grown into the stature of manhood—the steel industry—as we ought to do, and take some of the protection and turn it over to the American ship, we have the cheapest steel and the cheapest iron on earth. It is a wonderful history. We excel any nation on earth in the manufacture of steel and iron. We take the ore out of the hills and the valleys of our country, from our Lake region, and turn it into iron and steel, and we have ceased exporting it. It is only a few years ago that we were shipping vast quantities of pig iron out of this town, out of Savannah, out of every southern port, from the Birmingham district. We are practically shipping no pig iron out of this country to-day. The tonnage in pig iron that is shipped out of this country as compared with the total amount of pig iron produced in this country is infinitesimal. It is infinitesimal because in every line of the use of steel and iron we are using it more and more in our home industries.

SHIPYARDS IN THE SOUTH.

What little we have left as a surplus we are going to use in the manufacture of our ships, and when we do, when we manufacture our ships in American shipyards, when we gather about us a vast army of artisans for the manufacture of those ships in American shipyards, not only in the North but in the South, when the shipyards are ready for construction purposes, with the business to keep them

going, they will reduce the cost of the construction of the American ship. It has done it wherever it has been tried. It has done it in Germany. It is done everywhere. It will do it here.

At Pensacola, where you gentlemen of the Commission have been, at Brunswick, on the South Atlantic coast, and on the Gulf coast, there are magnificent opportunities for the development of shipyards, and the iron and steel are in the mountains and valleys of Alabama and north Georgia with which to construct the ships.

Mr. Chairman, I intended to say but a word, but I have been led into saying more than I intended.

Senator MARTIN. We have been glad to hear from you.

STATEMENT OF F. D. AIKEN.

Mr. GOODYEAR. I wish to introduce a citizen of Brunswick who has been with us for many, many years; who has been one of our exporters of lumber and cross-ties and sundry other things; who is the president of one of our banks; who violated that unwritten law about third terms and remained president of our board of trade just as long as we could get him to stay there; who has a great deal of that kind of sense which is very uncommon sense because it is called common sense. I want to hear from Capt. Frank D. Aiken.

Mr. AIKEN. Mr. Chairman and gentlemen of the Commission, in serving the board of trade on its committee it was thoroughly discussed among us who should do the talking, and all of our citizens who know Colonel Goodyear readily recognize that we all gave in to him. We had to give the Colonel a chance or we would have had trouble. [Laughter.] I think the Colonel has said as much about this subject as any man ought to say who is not a sailor man.

I have a little shipping interest, and I am very sorry indeed to say that I corroborate what Captain Tupper said in his paper. It is not a paying investment. I call attention to the motto put over the seats which you gentlemen occupy—"American Ships for American Car-goes." I think that is the text which the Commission should work on with a view of coming to good results. I am what you may call a protection Democrat. I am a Democrat, having been rocked in the Democratic cradle, and I never expect to breathe much else than Democratic air. But I am a protection Democrat.

FAVORS DISCRIMINATING DUTIES.

I have not studied this question sufficiently to say that I think the remedy has been found, but I am a believer in discriminating duties. I do believe that discriminating duties will give us back our trade with the West Indian islands and Cuba. That might be a selfish conclusion for this particular locality, but if the system will do our particular locality so much good, as I humbly believe it will, probably the same medicine will do good for our Pacific coast in the trade with the Philippine Islands and the East, and I for one would be glad indeed that it should be tried.

I also believe in generous mail contracts for our vessels, and I believe with discriminating duties and generous mail contracts our shipping would at least take on new life, and we would in a few years

see good results. I believe like Colonel Goodyear to some extent, that we ought to build ships in the South, but we can not. From what little I know of our national legislation I must say that we have abundantly protected nearly every industry and have neglected entirely our shipping. It is very plainly exemplified in the fact that our flag is carried very successfully so far as our coast trade goes. It could not last if the coast was open to foreigners.

SPLENDID COASTWISE VESSELS.

We are very proud of our coastwise vessels. We have some of the most magnificent ones afloat right in our harbor in Brunswick to-day, two five-masted schooners that would show up very well with any shipping in the world; in fact, they surpass any two, I think, in appearance and in management. I believe they make more time. Before this meeting is closed I should like very much to hear from some of the ship captains I see among us, particularly one whom I have the pleasure of knowing, and who is master of the magnificent *Helen W. Martin*, a schooner of over 2,000 tons register. You may have seen her spars this morning in driving over our city. She is a specimen of the American ship trading on our coast, and I am sure if she had the advantage of the discriminating duties she could trade with foreign countries. I wish to ask you to hear from Captain Ross.

Representative SPIGHT. Before you sit down I should like to ask you one question as a business proposition. I understand you favor the discriminating policy in connection with the extension of mail contracts. In granting these mail subsidies or subventions would you advocate that they be confined to the establishment of new lines where we have now no lines of steamers?

Mr. AIKEN. I think statistics would better answer that question. If our mails are largely brought by foreigners and our mails are largely carried by foreigners it might be well to give liberal contracts to Americans in competition with those foreigners.

Representative SPIGHT. I mean, in giving mail contracts, would you limit it to contracts to establish new lines where we now have none?

Mr. AIKEN. No, sir.

Representative SPIGHT. Or would you make it general and include lines already established?

LIBERAL MAIL CONTRACTS.

Mr. AIKEN. I favor liberal mail contracts in every direction where American bottoms can go, and also a discriminating duty. That, I believe, will give new life to our shipping. I honestly think if the Government were to build a 10,000-ton steamer to-day and turn it over to one of our captains, many of whom I see here, to run, and make him give a bond that he would operate that steamer under our flag until he lost her, he could not do it. He could not do it under the conditions that exist to-day. Absolutely, the matter must be changed entirely.

Mr. Kay on one point is correct, from my standpoint. I think a great many of our industries receive overprotection—receive entirely too much protection—and I believe in a revision of that protection. But the shipping of ours, which receives no protection, must

be protected to where it will be on an equal basis with every other protected industry. I am not a free trader, but a protection Democrat, and I should like to see the industries put on an equal basis.

I hope some of the captains to whom I referred will now be heard..

STATEMENT OF CAPT. ALEX ROSS.

Senator MARTIN. We will be very glad to hear from Captain Ross.

Mr. ROSS. I thought I was small and could hide away and would not be called upon. I never thought of such a thing as making any remarks. There is nothing I can say. Our learned friends all around us have discussed the matter. They have given very good ideas about the matter, to my way of thinking.

But in regard to free shipping, I can hardly agree with what our worthy friend has said. It would be a detriment, I should think, to all our shipping. As the gentleman has spoken so highly of the good schooner *Helen W. Martin*, I will say that I think he might as well haul her down here in the bay and let her lie there if we had such laws, because the steamers that carry coal to Cuba and all around, and carry your exports from your town and the neighboring cities, are foreign ships. If we let the foreign ships in, I do not see how we could live at all.

Mr. KAY. Why?

Mr. ROSS. Because this business could be done by our American ships just as well if we had a provision in that way. For instance, in carrying our lumber down to Mexico and down to Central America, carrying coal and coke and all that, they are operating extensively down there, as you are well aware, no doubt. That could be done nicely in our ships that are able to carry it and go anywhere where there is water enough—sound ships, every one of them—and it could be done, only that our laws and regulations let the others in on this basis. There is nothing I can say but that you are aware of, and I hope you will excuse me.

Mr. AIKEN. I wish, Captain, you would give us some of your ideas as to why American shipping has gone down to the degree it has in the last forty years.

Mr. ROSS. I think they were stated very nicely by our worthy friend over here; in fact, better than I could state them.

BRUNSWICK'S COAST TRADE.

Mr. GOODYEAR. Mr. Chairman and gentlemen of the Commission, this city is somewhat proud of five-masted schooners and six-masted schooners and four-masted schooners. The first four-masted schooner that was built in this country took its maiden trip to this city. The first five-masted schooner that was built in this country took its maiden trip to this city.

The first six-masted schooner that was built in this country made her maiden trip with an American cargo from this port, and went to the West Indies with coal, and came here and got her first American cargo in this port. There is another five-masted schooner in this port, and the gentleman who is master of her is here. I wish to hear from Captain Gilkey.

Mr. GILKEY. You will have to excuse me. I have nothing to say.

Senator MARTIN. The Commission will be glad to hear from any master of a ship who may be present and willing to give us the benefit of his experience on this subject and his thought as to the proper remedy. If Captain Gilkey will overcome his modesty, we shall be pleased to hear from him.

Mr. GILKEY. I have nothing to say.

Senator MARTIN. Is there any seaman who wishes to be heard?

Mr. GOODYEAR. Mr. Chairman, we have another gentleman here who sailed on a packet line from Boston for a great many years—practically a packet line. It was a regular line of sailing ships. He has fallen so dead in love with this South Atlantic coast country and this city that he has come here to abide with us. I want to hear from Captain Leo.

Mr. LEO. I do not think I have anything to say. I agree with Colonel Kay in what he has said.

ADDITIONAL STATEMENT OF W. E. KAY.

Mr. KAY. Before you close, Mr. Chairman, I should like to say a word.

Senator MARTIN. Certainly.

Mr. KAY. I heard Goodyear and Aiken in reply, and I do not think either of those gentlemen met the question. They tell you the difficulty; they do not tell what the evil is. In my judgment, while clamoring for a better condition of American commerce, they do not tell you why American commerce has gone down. I will tell you why American commerce has gone down. It is because American citizens found they could make more money in manufactures and industries at home than they could in shipping. That is why it has gone down. The people of this country have found it cheaper to ship in foreign bottoms at reduced rates of freight than to attempt to build ships to meet those rates of freight.

MUST PAY FOR IT.

They have been so protected at home in their manufactures, and have made such enormous profits under that system, that they do not dare to go out and meet the competition of the world in shipping. To-day they want American shipping and the American flag. If you want it you must pay for it, because it is a luxury. We must subsidize, and we must subvene, and we must do everything else on the face of the earth to have the American flag fly on the ocean in competition with foreign flags. We have a coastwise business simply because we have built a wall about it and have prohibited everybody else from coming inside.

If we want to compete with foreign nations, we must go and pay such a premium to have the flag flying in the ports of the world as would amount to individual taxation which, piled upon the present system, is going to be enormous upon the humblest citizen in the land. Do we want the luxury? That is the proposition.

Senator MARTIN. We shall be glad to hear from anyone else present who has anything to present—any seaman or sailor who thinks there is anything unjust to them in the navigation laws, or any member of

the pilots' association, or anybody else. Colonel Goodyear, do you know of anyone else?

Mr. GOODYEAR. Mr. Chairman, there seems to have been a full expression of opinions on the part of gentlemen present. I understand that you have given a general opportunity to anybody to speak, and it is getting quite late.

REMARKS OF SENATOR MARTIN.

Senator MARTIN. On behalf of the Commission, I desire to thank you gentlemen for your attendance here and for the views you have given us. We have desired to hear from every possible source from which any information could be derived, from the seaman, the engineer, the pilot, the owner, and the builder of vessels—those who operate vessels and those who have things that are carried in vessels. We were sent here for that purpose—to hear the views of practical men on this very complicated subject—and I believe that all have been heard who wish to say anything. All I can do is to thank you again most sincerely for your attendance and for the assistance you have given us.

Thereupon (at 4 o'clock and 30 minutes p. m.) the subcommission adjourned.

HEARINGS AT NEWPORT NEWS.

NEWPORT NEWS, VA., *Saturday, November 19, 1904.*

The subcommission met at 10.30 o'clock a. m.

Present, Senators Martin and Mallory, and Representative Spight.

REMARKS OF A. L. POWELL,

President of the Chamber of Commerce.

Mr. POWELL. Gentlemen of the Merchant Marine Commission and visiting friends and representatives: It affords me pleasure to preside over this meeting, which I deem quite an honor, and our first speaker will be our mayor, Hon. Samuel R. Buxton, of Newport News, who will welcome our guests and the Commission.

ADDRESS OF HON. SAMUEL R. BUXTON.

Mr. BUXTON. Mr. Chairman and gentlemen: I do not appear before you at this time as shipowner, a shipbuilder, as a representative of a shipbuilding company, nor as an expert on the question of the American merchant marine. I only sincerely wish that I was so conversant with the subject that out of an abundant knowledge I might be able to speak to you as one having authority. I crave your attention merely to the opinion of a layman, if I may use the term. I should like further to say that I do not appear before you to be unduly interrogated as to such views as I may express nor to be too closely pressed for the reason of the faith I may have.

It may not be amiss for me to state, however, that should there be in your minds some question more perplexing than another and upon

which you desire additional light and knowledge, we have with us this morning one who can speak with authority, which authority has for its warrant several years of study and original research. I refer to the Hon. R. G. Bickford, and to him would I have you look for a solution of those problems and for an answer to those questions which present the greatest difficulty and which to you may seem most perplexing. I offer this preface to what I shall say for whatever relief it may bring to a diffidence naturally strong and which more than ever encompasses me at this time as I approach a discussion of a subject so broad and so deep and upon which I have had a limited opportunity of study.

A VITAL QUESTION.

The rehabilitation of the American merchant marine is a question of such vital import to the United States that for a proper solution thereof party affiliations and party prejudices should be laid aside as in every sense unworthy. Statesmanship and not partisanship should control. To such a pass have matters come that Americans must blush for very shame over existing conditions. Our commercial development along every line has been unprecedented in the history of nations, and our world-wide supremacy is universally acknowledged. To the outside world we appear to have been led by the fairy wand of magic, and there has been no hand to set a limitation upon our development nor to impede our rightful progress.

Coequal with this strident march in every other branch of industry has been the retrogression in our merchant marine. Its decline during the past seventy-five years is nothing short of national disgrace, and to my mind forms one of the saddest commentaries that has been or can be written of American statesmanship in any period of our national existence. In 1826 the American ships were carrying about 90 per cent of all American foreign commerce. At the present time American ships are carrying only about 9 per cent of our foreign commerce. Notwithstanding the fact that in that length of time our foreign commerce has increased twentyfold, the tonnage of to-day is less by 100,000 tons than in 1826.

ONE SECOND TO NONE.

Under the old policy, or the initial policy, as inaugurated in 1789, our merchant marine constantly increased until it was second to none upon the wide seas. With the abolishment of this policy our merchant marine has constantly declined until it has become a national humiliation and a national menace. With such conditions as these, where the commercial life of the nation is at stake, I claim that there is no place in our deliberations, nor in the legislative department of our Government, for party quibblings. Democrats and Republicans alike, animated only by considerations of public welfare, should work and legislate as they would in matters concerning the honor and integrity of our country. Surely such humiliation as is ours to-day should be sufficiently persuasive to insure the utmost harmony and concert of action.

That there is urgent need for some national legislation by which relief may be brought to existing conditions every impartial mind stands ready to admit. The line of divergence in opinion comes as

to the methods to be employed to afford the relief sought and the apportionment of such relief. As to what legislation will best meet the requirements, so far as I am advised, there is among prominent shipbuilders and shipowners widely divergent opinion. From the mass of expert opinion, however, of which you gentlemen have already had the benefit, we confidently believe that some plan will be evolved and that legislation in accordance therewith will be enacted by our National Congress.

FIRST THE SHIPYARD.

The first thing suggested as the study of this question is approached is the necessity of fostering the American shipyard. And naturally, too, because only through them can our merchant marine be developed and subsequently maintained. There are two great factors operating to occasion this necessity—the cost of labor and the cost of material. At a conservative estimate the cost of labor in the United States exceeds that in England by at least 75 per cent, and when we remember that in estimating the cost of a vessel at least 50 per cent thereof will consist of labor, it is not hard to appreciate the handicap which rests upon the American shipbuilders when they come into competition with foreign shipbuilders.

When we consider the cost of material we are confronted with similar conditions. The foreign shipbuilder can purchase steel from our home markets to be used in the construction of vessels at a cost many dollars less per ton than the American shipbuilder can buy the same steel. And so it is—though the difference is not so large—in the cost of other material needed. The American shipyard therefore must be aided, if we are to have an American-built merchant marine. To meet this requirement and to insure an immediate development of our merchant marine, the most practical method suggested, to my mind, seems to be found in the allotment of some building bounty or subsidy sufficient to equalize the cost of American-built ships with foreign-built ships.

Restrictions should possibly be placed about this provision for a building bounty or subsidy restricting it to the faster vessels or to such as could be utilized in time of war as a force auxiliary to our war vessels. Some direct subsidy would place the American shipyard on equal footing with the foreign yard and make possible an American-built merchant marine.

THEN THE SHIPOWNER.

This direct subsidy would be for the benefit of the American shipbuilder. But this is not enough. Some encouragement and some assistance must be given to the American shipowner. This may be accomplished in several ways, as by a liberal compensation for carrying mails in American-built ships, by a moderate tonnage duty on all outgoing cargoes or shipments in American-built ships, or by a differential duty in favor of imports carried or brought into this country on American-built ships.

The great industrial heart of America beats strong, and no artificial means will be required to insure the transmission and transfusion of life-giving blood to the remotest parts of the American

body, provided only there be supplied the veins and arteries through which this blood may find its way. In 1826 the veins and arteries which theretofore furnished blood for the proper maintenance of our foreign commerce were severed by national legislation. From that time our American merchant marine has steadily declined until at the present time we find its strength and vitality well-nigh spent. Since that time its flow through that portion of our system has been unconfined, and hence not productive of life. Give us through our American merchant marine the veins and arteries through which the blue blood of American commerce may course its way, and the erstwhile vigor will be reclaimed, our prestige will be restored, and the American flag of our merchant marine will be as triumphant in commerce as in war are American arms. [Applause.]

REMARKS OF A. L. POWELL.

Mr. POWELL. Some years ago there was considerable talk about changing our ports of entry—that is, of either going to Norfolk, the regular port of entry, or Newport News. I remember very well that Norfolk was very much wrought up over the matter. So was Newport News. Each place sent large delegations to Washington to appear before the Secretary of the Treasury. I think it was four or five years ago. Our delegation, composed of 15 or 20, I think, with high beaver hats, appeared before the Secretary, and Norfolk had about the same number. When we got before that officer of course we naturally called on our most eloquent speakers, and in the midst of the argument and oratory, very much to our chagrin, we were politely called down, and our attention was called to the fact that the Secretary was not there to deal with sentiment and oratory, but that he wanted facts and figures.

I presume this Commission feels very much like the Secretary did. Its members are not here to-day to hear oratorical addresses, but they want facts and figures in order that they may get through their business in time to return to Washington to-night. Is that the programme? Do you expect to go to Washington to-night?

Senator MARTIN. We do. We expect to close the hearing here this afternoon.

Mr. POWELL. Therefore, I ask whoever is called upon to be brief and to state as nearly as possible only facts.

I call upon Senator Holt, of Newport News.

STATEMENT OF HON. S. W. HOLT.

Mr. HOLT. Mr. Chairman and gentlemen of the Commission, the distinguished gentleman from Mississippi [Mr. Spight] stated last night that he did not want people to tell the Commission that we needed a merchant marine and wanted one; that the Commission knew that; but that they wanted us to submit something practical along the line of a remedy. I am not in a position to give the information desired.

I am glad to observe that the American people are aroused on this question, and when the American people get aroused on a question they are going to accomplish their aim. They realize that the time

has come when America must have her part of the carrying trade of the world.

Some years ago an article appeared in one of the magazines in which it was stated that England was annually buying more than she sold, and in a number of years at that rate England must naturally become poorer. It put the financial people of England to thinking, and some one came out in a statement (I forget who it was, but it was a distinguished Englishman) that England had such a percentage of the carrying trade of the world and that investments in different parts of the world brought so much money to England annually in interest, that it overbalanced what they bought in merchandise from the rest of the world, and in that way England would continue to grow richer. She has and she will, until other nations get their proportion of the carrying trade.

AN OBJECT LESSON.

I was in Europe this summer, and I returned home on the Atlantic Transport Line. They have two lines. One sails from New York to London. It flies the British flag. They have another line, I think, sailing from Philadelphia to Rotterdam, probably, which flies the American flag. On my return there was on the *Minnetonka* of that line, sailing from London, a crew of one of the liners, the *Maine*, which had been sailing from Philadelphia. I got in conversation one day with the head engineer of the *Maine*. She was laid up at Rotterdam. He pointed to a man and said, "Do you see that man? He was second engineer under me on the *Maine*. We were laid up on account of the expense of an American crew and of sailing under American licenses. They can ship an English crew or a foreign crew so much cheaper than they can an American crew that they found it did not pay them to sail under the American flag. That is why we are sent home." He said "that engineer yonder got a salary on the *Maine* of \$125 a month as second engineer. He sails on this ship, so many tons larger, under an English license, and he gets \$90 a month."

If that condition of affairs exists you can readily see that in time there will be no American merchant marine upon the high seas, and in the event of a great war, which we might have, when it would be necessary for us to have sailors, we could not pick up the proper class of men from our citizens. We must have people who are experienced sailors, and unless we can offer some advantage to the American crew to sail under the American flag, the time may come when we will find it very detrimental to our country.

I am sorry I am not in a position to give the Commission more information on the line you want, but I feel sure there are others here who can give it.

STATEMENT OF CAPT. J. W. M'CARRICK.

Mr. POWELL. The Commission has been impartial in every sense of the word, so far as our own people in this section are concerned, and they have asked us to call on people representing the different lines and the different industries, the seamen and others. We have with us Captain McCarrick, of the Norfolk Chamber of Commerce, and

who represents the Clyde Line and other lines running from Norfolk. We will be pleased to hear from him.

Mr. McCARRICK. Mr. Chairman and gentlemen, I do not come here as representing any line. I come here representing, as chairman of its committee, the board of trade and Business Men's Association of Norfolk. I am sorry I have not a better voice to make myself heard, and with the permission of the chairman I will ask the secretary to read the few remarks which I have to make, after which I will stand prepared to answer any questions along the line of that paper.

Senator MARTIN. The secretary will read as requested.

The secretary read as follows:

"Gentlemen of the Merchant Marine Commission:

"In your travels through the country, and we understand you have traveled from Maine to Texas, it is questionable if you have visited any section in which the necessity for some active and immediate steps are more necessary to help restore its maritime mercantile interests and the relative position of prosperity it once enjoyed than the section whose interests you are now investigating.

"Despite the many rail lines terminating in this port and reaching to all points in the country, we have become a mere point of transfer, and our old-time merchants have been succeeded by brokers and forwarding agents representing protected enterprises which flourish in other sections of our great country.

"The need for a remedy can and should be made plain to you, both from an ancient and from a modern standpoint. Ancient, as it shall be my pleasure to attempt showing, and modern, up-to-date, as has been or should be demonstrated to you by the representatives of our young and lusty neighbor, Newport News.

NORFOLK'S OLD COMMERCE.

"The earliest recollections of my boyhood are connected with ships, shipyards, and sailors, for which our good old town (now city) of Norfolk and our good old neighbor, Portsmouth, were then most justly celebrated, to say nothing of the large and flourishing machine works in both places. In Portsmouth (or Gosport, as the shipyard section was then known) there flourished the Page & Allen shipyard and Mahaffee's extensive machine works. In Norfolk, besides several extensive machine works, there were shipyards controlled by the Hunters, Collies, Nashs, and later by the Graves and the Atlantic City yards, established by 'Commodore' Marshall Parks, most of which not only lived but thrived, principally constructing ships for foreign and Pacific trade. Not one of them is at present in existence.

"Then ships were built, owned, manned, and officered by citizens of Norfolk for trading in the East Indies, the Pacific coast, China, South America, Central America, and the West Indies. Our old shipmasters, the Chamberlains, Drummonds, Cornicks, Ryans, Gilbert, Vickers, Tobias Ham, and many others, not only sailed, but helped to build and own ships, prospering accordingly. This in my day. The directory for the year 1803 (years before my time) shows the names of 83 shipmasters residing in the then borough of Norfolk and trading out of this port. A clipping from an old newspaper, brought to my attention by one of our oldest citizens, Mr. Thomas B. Rowland, shows that in 1829-30 contracts were given by the 'North Carolina Trans-

portation Company' to 11 different shipyards (located in Norfolk and Portsmouth) for the construction of 20 small vessels, to be built in thirty days, for the hauling of naval stores and other produce from interior North Carolina points, to be loaded in foreign-bound American ships at docks in Norfolk and Portsmouth.

ALL FLYING THE AMERICAN FLAG.

"In the days of my boyhood and young manhood ships in the foreign trade, all flying the American flag, lined our long wharves three deep, and ships flying a foreign flag (save an occasional Swedish, Norwegian, or Nova Scotian of small size) were a rare sight to see. Now many of our young men are born and grow to manhood without seeing an American-built ship, flying the American flag, engaged in foreign trade to and from this port.

"There must be some serious cause underlying this condition of decadence, and for which it is my understanding you are proposing to seek and apply a remedy.

"Primarily, in my judgment, it came from the earlier and more general utilization of iron for construction, and coal for propulsion, by English builders and owners. While American shipbuilders were confined to wood for use in construction, and while the operation of steam vessels (using wood for fuel) was confined almost entirely to inland navigation in this country, England was building ships of iron, supplied with coal from her mines in Wales, to search out trade in all parts of the world. This early advantage has been maintained by the use of cheaper built ships, lower wages for mechanics employed to build them, cheaper crews, cheaper food for the crews, etc., to say nothing of governmental assistance extended, from time to time, in different ways.

FOR SUBSIDY ONCE.

"Some years ago, as a cure for this condition of things, the Board of Trade and Business Men's Association of Norfolk, of which I am a representative, united with the Chamber of Commerce of Norfolk, the Chamber of Commerce of Richmond, and the various business and trade organizations of Petersburg, Lynchburg, Danville, and Alexandria in unanimously indorsing what was then known as the "Dingley ship subsidy bill." This bill, as understood by us, provided for absolutely and directly subsidizing all American ships in the foreign trade, according to their class, speed, etc., and despite the Democratic proclivities of a majority of our members, was indorsed with practical unanimity.

NOW FOR MAIL CONTRACTS AND DUTIES.

"Since then questions have been raised as to the advisability of advocating direct subsidies. In my judgment, assistance should be extended, and extended promptly, to ship owners and builders in the shape of more liberal contracts for carrying the mails, and by discriminating duties on indirect commerce; that is, commerce coming into the United States in vessels other than those of the country from which they come. This will, I think, be generally considered a more acceptable plan by the people of the country at large, and certainly of this section.

"As to the mail contracts, or postal subsidies, they should be extended (expanded) to embrace service to the West Indies, Central and South America, South Africa and the Far East, while discriminating duties should be made to aid the smaller and slower class of ships, such as it is our hope to have once more built in southern shipyards, and to be owned and officered by our own people. It is for you to decide and report, after the exhaustive study you have been and are giving this question, which plan will be for the best interests of those immediately concerned, as well as for the country at large.

THE NATION'S AID.

"The people of this section, especially of our old city of Norfolk, have until recently been recipients of less cooperation or assistance from the General Government than any other city or section, and we think that the time has about come when our representatives at Washington should try to even up a little. I can recall when, following conscientiously their belief in the doctrine of State's rights, they not only would not ask, but declined to accept, aid from the General Government for the improvement of our river and harbor, for fear of ceding jurisdiction to the 'General Government.'

"Consequently, while cities to the north of us with inferior harbors were having them developed by experienced engineers with improved machinery and material, we were dependent upon one old dredge, or, as it was then termed, 'mud machine,' operated by blind mules. In the light of subsequent events an entirely blind proceeding. The result need not be imagined. It has shown for itself, and despite the 'great natural advantages,' on which our people have relied too much, we have been relegated from the first to the last rank among successful seaports.

"Other gentlemen, who have already or will address you, will doubtless go into details showing the difference in the cost of building and operating American ships as compared with foreign ships which pay less wages, furnish cheaper food, and are generally operated in a manner that American shipowners and crews would not countenance.

"NOTE. I am credibly informed that the first locomotive brought to this country was brought in the American ship *Madison*, Captain Cornick, of Norfolk, master. A picture of this ship leaving the port of Marseille, France, in 1830, or thereabouts, has been tendered our Board of Trade and Business Association by one of its most respected representatives, Capt. N. M. Osborne, of Norfolk, formerly of Petersburg, and who, if he is present, can tell you something as to the foreign trade moving to and from City Point (then the port of entry for Petersburg) in both antebellum and postbellum days. Whether the *Madison* was built in Norfolk does not appear, but it is thought she was."

STATEMENT OF CAPT. HENRY E. PARKER.

Mr. POWELL. We have with us Capt. Henry E. Parker, of Newport News.

Mr. PARKER. Mr. Chairman, in speaking of the matter of improving our merchant marine, the problem is so intricate that it is almost impossible for a person with the information at my command to state

its remedy intelligently. We know the patient is sick, but we do not know exactly how to diagnose his case or to prescribe the remedy. At the same time from my experience in handling the export business from Newport News, of which 95 per cent or possibly more is handled by the Chesapeake and Ohio, which I have the honor to represent, I may say that they have been forced to handle it in foreign bottoms. We would be very glad indeed to see the products we collect in the West carried out by ships flying the American flag.

When the road was built to Newport News we were led to the conclusion, based upon our tonnage reports, that the railroad could not support itself with its local business. We then looked about to increase its export business, and finding that ships were so very expensive to build in the United States, we entered into a contract some ten or twelve years ago by which six ships—steamers—were built in England, the builders taking a large proportion of the indentures or bonds in payment for constructing the ships, the railroad company only a little over one-half, so as to practically control their operations. Those ships have been running ever since with more or less success.

THE FACTOR OF WAGES.

Now, on the question of replacing them with American ships, it seems to me, based upon the experience I have gained in talking with the crews of the vessels, that even if such legislation were passed as would enable us to get free ships, we would have then applied only a small portion of the remedy. We can not operate American ships as cheaply as the Englishmen can operate their ships, and if we get free ships and they must be operated with American crews, we are certainly handicapped with from 25 to 45 per cent additional expense in operating with American crews. Consequently the relief should come, as mentioned by the gentleman who has spoken, in differential duties on the indirect importation, and I am heartily in favor of that plan, and possibly a differential duty on exportations in favor of American bottoms.

I do not see that we would antagonize the other nations of the world—and, being our customers, we do not wish to antagonize them—from a business point of view by legislation along these lines, not too drastic at first, but feeling our way, and seeing whether we have struck the right track; not going so far but that we can go back to the crossroads and take the other road that possibly may develop.

ENGLISH MAIL SUBSIDIES.

The ships must be taken care of to a certain extent by judicious legislation; and we can follow along the lines of England in that respect, because she has constantly given large subsidies in the shape of mail contracts, if not a subsidy pure and simple, to new lines contemplated, until they become self-supporting, and then as the years went along and the baby was able to walk, they have reduced those subsidies. I think something along that line could be done with our merchant marine.

Then the other feature which can be more ably discussed by people who are familiar with it is the shipbuilding interest. While we at Newport News recognize that the shipbuilding interest in this enor-

mous plant created here by the brain of one of the ablest Americans who ever lived is a local matter with us here, yet you gentlemen, as representing our Government, must understand from your broad means of knowledge that it is a benefit to the whole country to have first-class shipbuilding plants not only on the Atlantic seaboard, but on the Pacific and at all our coast ports. A legitimate and wise assistance should be given those shipbuilding plants, whereby they can overcome discrepancies in the cost of their raw material as against England, which builds ships, literally speaking, in a factory, with the coal at one door and the iron at the other door, while we have to transport a great deal of our material many hundreds of miles and pay increased prices for labor.

NO REDUCTION OF WAGES.

I do not think any of you gentlemen or any of the people here would advocate any legislation which would look to compensating this difference by the reduction in the wages we pay our seafaring men. It is a risky business. Every time they go out they do not know but that they will never get to the other port. I think for their intelligence and brains to operate ships successfully, to make successful voyages, they should be well paid. Consequently I am opposed to equalizing the matter by reducing the wages to the men in that service.

If you get free ships, you do not remedy the evil. You must then still further compensate or arrange in some way to even up the difference in the cost of operating those ships as against the English, who are our next competitors, and the English even are feeling the competition of the Norwegian vessels, which operate still more cheaply. Norwegian bottoms come to our port and take cargoes for English account. I loaded a ship here not two weeks ago, entirely an English transaction, but carried in a Norwegian bottom because it carried it cheaper. Their wages are less. Those are things which you gentlemen have to look at, and see if you can conscientiously recommend legislation which will remedy that feature. Otherwise, free ships will not avail.

Senator MARTIN. I wish you would give us a description of the six vessels you operate. What is the character of those vessels?

Representative SPIGHT. Before you go to that inquiry I should like to ask a question.

Senator MARTIN. I withdraw my question.

ALL OPPOSED TO FREE SHIPS.

Representative SPIGHT. Your opposition to free ships strikes me with a great deal of force, and we have found expressions of that sort wherever we have gone. Is it not true, in addition to what you have said against the policy of free ships, that that policy would result necessarily in the destruction of our shipbuilding interests?

Mr. PARKER. There is no doubt whatsoever of it.

Representative SPIGHT. It would close all our shipyards?

Mr. PARKER. It would destroy the shipbuilding industry. You gentlemen read the papers carefully, and you know the condition of the shipbuilding plants of this country as a whole. I do not mention

the one here, because it has been fairly successful. But, on a whole, they are unsuccessful. You know the difficulties of the Fore River yard. You know that Mr. Morgan and those behind him had to come to the assistance of the Cramps. That shows there is something radically wrong. There is an immense amount of capital invested, and it should be nurtured by honest legislation in every way that is legitimate for the good of the whole people. What would occur in this city if anything should happen to this yard—if the company had not a long purse to meet the weekly pay roll of \$60,000? And no matter how long the stocking, you will get to the end of it.

NOT ALWAYS BATTLE SHIPS.

We can not always build battle ships, and we must have some assistance which will warrant the outlay of capital. You might say, but I think wrongly, that that would be class legislation; but you should bear in mind that nearly all the expense of a ship—at least the larger proportion of a ship's cost—goes into labor. Where does it go? Not only among the men here, not only among those in a prosperous city like Newport News, but the expenditure of that money in one channel here in Newport News, through that one channel, is spread, like a mighty river, all over this land—to the mines that produce the iron and steel, to the foundries who provide the special castings, to the cordage factory, to the wire mills, in fact everywhere. Therefore, legislation which aids that industry is not local in any sense whatever, but is broad legislation for the entire country.

Representative **SPRIGT**. One other question before you answer Senator Martin. You speak of the increase of mail subsidies for new lines. If I understand you correctly, you favor the granting of these mail subventions only in aid of new lines, not to old lines already in existence.

MAIL SUBVENTIONS.

Mr. **PARKER**. With the limited information at my command I should say that that was the greatest line of assistance. In other words, say to the people, "If you are willing to risk \$2,000,000 or \$3,000,000 to start a line into new territory, we, as the Government knows it will get the money back in increased trade, will assist you with a liberal mail allowance. If we find that you are getting on your feet and can walk alone, we will reduce that." But at first some aid must be given or else the cash will remain locked up in the vaults in the cities.

I believe Senator Martin asked me something about our ships.

Senator **MARTIN**. I should like to know the character of the six ships put on in the foreign trade at this port through the agency of the Chesapeake and Ohio.

NOW USING FOREIGN STEAMERS.

Mr. **PARKER**. We entered into negotiations with Christopher Furness, member of Parliament, and through him with the shipbuilders, for three ships for the London trade and three for the Liverpool trade. The London ships carry about 3,500 tons gross and the Liverpool ships about 1,000 tons more, say 4,500 tons. They were pure and

simple freight-carrying ships. We knew that under the laws governing the transportation of immigrants or other passengers we could not offer any inducement to that line of business. Consequently we did not want to add very much to the expense of those ships by providing passenger accommodations. In order to handle that class of business successfully you must have numerous sailings, following each other closely. With us, if we had undertaken to do that class of business, we would have had to have an enormous fleet, for otherwise, if the immigrants did not happen to make one sailing, they would have to be taken care of for two weeks until there was another sailing. Consequently that cut us out of that.

So we got 6 ships purely to carry freight, because our line found it could not support itself on its local business and had to look for export business. When we looked for export business, we had to go into the merchant's office in Chicago, or Minneapolis, or Kansas City, or St. Paul, or St. Louis, or Indianapolis, or anywhere else, and we had to be able to say to those gentlemen, "Will you give us 1,000 tons of freight for Liverpool," or London, as the case might be. They would immediately say, "Yes; we have freight to move to those points. What is your rate?" These rates are fictitious. "Our rate by rail is so much, and the ocean rate is, say, 10 cents." The merchant would say, "My dear sir, I would be very glad to encourage your line in Virginia, especially as you have had progressive spirit enough to establish it and take that much risk; but we find that the rate at Baltimore is 9, at New York 8, at Boston 7, perhaps. Now, we can not give you business from sentiment alone, because our competitors that ship by the other lines would undersell us."

INADEQUATE CHARTERED CRAFT.

Consequently we found that the reason why we could not give the better rate was because we were dependent upon chartered ships, and when you charter a ship you guarantee so much money for her per ton, and in order to get out even and get your money back you have to figure the rate at so much a hundred pounds. We found that by building and owning our own ships we could make a rate equalizing the other ports, absorbing any loss that occurred, and by having absolute control of the ships we were able to go into the market. That is the way we have been able to get our business—by going into the market on an equality with the other ports.

Senator MARTIN. Those ships are now in operation?

Mr. PARKER. The three Liverpool ships are. We sold the three London ships and bought two of larger capacity.

Senator MARTIN. Are they profitable?

Mr. PARKER. We hope to make them so, although we have had a pretty hard thing of it.

Senator MARTIN. You run three to Liverpool and two to London?

Mr. PARKER. Yes, sir.

WESTERN CARGOES.

Senator MARTIN. They carry chiefly, I suppose, cargoes of products of the West, brought here on the Chesapeake and Ohio road.

Mr. PARKER. Yes, sir. I may say that one of the unfortunate conditions to us of the prosperity of the country to-day is that the

price of wheat and, in consequence, the price of flour, which, of course, is augmented by the higher price of wheat, have reduced our exportations very largely, because the people on the other side could buy elsewhere in a cheaper market. The same applies to grain at present.

Senator MARTIN. What about return cargoes?

Mr. PARKER. Of return cargoes, we have been able to handle a great deal, although not as much as we wish. As to return cargoes, we tell the contracting agents on the other side, our agents there, to give shippers the same rates that they get to New York, or Baltimore, or Philadelphia. That is the way we get that business.

Senator MARTIN. You are bringing a fair share?

Mr. PARKER. Yes, sir; from 1,000 to 1,500 tons each trip. We are doing very well, indeed, and expect to do better next year.

DISCRIMINATION WOULD BENEFIT.

Senator MARTIN. If there was a discriminating duty on commodities brought into this port by your ships, so that a materially less tariff duty would be imposed upon them, do you not think it would give you very quickly full cargoes in return, or at least better cargoes than you now have?

Mr. PARKER. I feel satisfied of it, and I do not think I am too sanguine in saying that. I wish you to understand that that would have a bearing in overcoming a certain feature that is a very prominent factor against us, and that is that ships carry freight cheaper to New York than to Newport News. I am speaking of chartered ships, and we have to depend upon them to a certain extent even with our own boats.

Senator MARTIN. Do you not think that the advantage which would accrue to your ships under a differential tariff discriminating in favor of American ships, would induce your owners to transfer them to American register?

Mr. PARKER. Yes, sir; I think it would be a very strong inducement. As I tell you, I do not think free ships alone would do. You would have to add something to compensate for the difference in cost of operation.

Senator MARTIN. When you had those ships built abroad did you get quotations from or consider at all the question of having them built in a home yard?

Mr. PARKER. Yes, sir; in a general way. We did not get any bids. At that time money was pretty tight and the builders in England were able to help us financially by taking in bonds a large proportion of the expense.

Senator MARTIN. So that you did not get any actual quotations from the Newport News shipyard?

Mr. PARKER. No, sir.

Senator MARTIN. You are not able to give us the exact figures as to the difference between what it would have cost to have had the ships built here and what it did cost to have them built abroad?

A 25 PER CENT DIFFERENCE.

Mr. PARKER. Not from actual bids, but from general information and from inquiries we made with respect to other ships of somewhat

similar type, we saw that the difference in expense would have been something over 25 per cent. We knew that in a general way without any bids.

Senator MARTIN. That was six years ago?

Mr. PARKER. Nearly ten.

In closing, let me say that the assistance should be given in some legitimate way, which I expect you gentlemen are able to determine as the result of the varied information you have obtained. Not only should there be a differential duty on goods imported in American bottoms, but some assistance should be given to the shipbuilding plants in building the ships.

Senator MARTIN. Are any of the officers or crew of your vessels Americans?

Mr. PARKER. No, sir; not a single one.

ALL FOREIGN CREWS.

Senator MARTIN. All of the officers and all of the crew are foreign?

Mr. PARKER. Yes, sir; English.

Senator MARTIN. And the scale of wages paid to the officers and men by you on those English ships is materially less—

Mr. PARKER. Materially less.

Senator MARTIN. Than is paid to American officers on like ships under the American flag?

Mr. PARKER. Roughly speaking—and this could be verified by information which I presume I could get in time—I should say that the difference is fully as much as Mr. Holt makes it—something like 50 per cent. For instance, an engineer would get \$150. On an English ship he would command only \$85 or \$90. Captains do not get over \$100, and some get less.

We would not think of getting a captain on a first-class freighter, not to say a passenger boat, for less than \$100 a month, and we would pay even more than that. You do not want to confuse the foreign business with the coastwise business, as the conditions are entirely different. The conditions would be exactly the same if we did not have the legislation that excludes foreigners from the coastwise trade. The coastwise business, because it does not meet that competition, is quite profitable.

Senator MARTIN. Have you any personal familiarity with the difference in quarters and in food as between English vessels and American vessels?

AMERICAN CONDITIONS INFERIOR.

Mr. PARKER. It is so perfectly evident that he who runs may read. The conveniences for the captain and officers on an English ship are not to be mentioned as compared with the accommodations we give the captain and crew on our coastwise vessels; and the food, while it has improved somewhat on English vessels, does not compare with the regulation food that we give our American people.

Senator MARTIN. So both in quarters and in food the English are inferior?

Mr. PARKER. They are inferior to the American accommodations and food.

Senator MARTIN. And between the English and the Norwegian there is still a difference in favor of the English?

Mr. PARKER. It is coarser and cheaper food. It is such food as an American would rather stay on shore than submit to.

Senator MARTIN. Are you advised of any defects in our navigation laws in respect of which you think amendment ought to be made?

Mr. PARKER. I can not think of any.

Senator MARTIN. You think the navigation laws are not detrimental to the services of our people on the sea?

TAXATION OF SHIPPING.

Mr. PARKER. Certainly not. And our laws regarding taxation of ships which come into our ports are certainly as liberal as we could wish for, and more liberal than those with respect to English ships in their own ports.

Senator MARTIN. What taxation do you refer to?

Mr. PARKER. Light dues.

Senator MARTIN. Port dues?

Mr. PARKER. Port and light dues.

Senator MARTIN. Do you think the taxation by the State or by the municipality constitutes any burden on our shipping?

Mr. PARKER. I should say from my knowledge, gained by watching it closely, that there is no complaint along that line. Of course, if there is any expense they could obviate they would be glad of it, but it is not burdensome.

Senator MARTIN. The ships with which you are connected are not taxed in this country?

Mr. PARKER. No, sir; except in tonnage dues, which is a small matter.

Senator MARTIN. I do not think of any other questions.

Representative SPIGHT. You spoke of the difference as to cost in operating a Norwegian as compared with a British or an American ship. Where do those Norwegian ships buy their supplies? Do they trade here or do they largely bring their supplies with them?

SUPPLIES BOUGHT ABROAD.

Mr. PARKER. They largely bring their supplies with them. They simply trade here for the absolutely necessary supplies—perishable goods. They get some eatables in the way of perishables—a little meat. They do not use much of it as compared with the American ship. They come down here with their oil and all their general supplies full up.

Senator MARTIN. I suppose the repairs on these ships are mainly made abroad, too?

Mr. PARKER. Yes, sir. For instance, there is the case of a ship we loaded with a cargo of coal for Vera Cruz, Mexico. I was talking with her captain out here about a month ago. She was a Norwegian ship, and he said he had just come from a yard in England where he had spent six months overhauling, the first time he had been to the yard since she was out, which was some years.

Senator MARTIN. Where does the Chesapeake and Ohio repair its steamers?

Mr. PARKER. On the other side. If one of them should happen to meet with a breakdown here necessitating repairs in order to make the voyage back, they would be made here, but even in that case I am satisfied that the policy of the owners would be to make temporary repairs here if it were possible and do the permanent repairs on the other side.

Senator MARTIN. Are there any vessels flying the American flag going out of this port in the foreign trade?

Mr. PARKER. Not at present.

Senator MARTIN. Not one?

THE BRAZIL LINE.

Mr. PARKER. We had one line which is an object lesson as to what the American merchant marine needs. It was established by Mr. Huntington, and it was running when I first came to Newport News. I refer to the United States and Brazil mail steamship line, running from New York, stopping at Newport News, taking the products of the mills at Richmond, thousands and thousands of barrels of flour, and running to South American ports. But the competition of the cheaper English vessels gradually forced them into bankruptcy. Mr. Huntington was a man who always stayed in an enterprise if he possibly could; he had the nerve to put his money into it in the first place and to stay with it as long as there was any chance of working it out; and he finally abandoned the line after losing something like \$3,000,000. That is an object lesson. By reason of the cheaper work done by the cheaper class of vessels, manned more cheaply, and assisted by the English Government in the lines running from England to South American ports, our line was unable to live. Its vessels were finally sold under the hammer. Some of them are still running. The *Advance*, the *Seguranca*, etc., were as fine boats as ever were built in America.

Representative SIGHT. In connection with your suggestion of discriminating duties, it is said sometimes that that would bring about retaliation on the part of foreign governments. Do you think we have much to fear along that line, in view of the fact that a large percentage of our exports to those countries are made up of food and clothing products, either in the crude or manufactured state, inasmuch as whatever burden they might put upon our exports going to their countries would be a burden upon the food and clothing of their own people?

NO FEAR OF RETALIATION.

Mr. PARKER. I can only reply to the honorable gentleman by saying that I think that that is, to use an American slang phrase, more or less of a bluff. I think those people, if they want something to eat and something to wear, will still get it in our markets if we give them good articles at the proper prices. I do not think sentiment will enter there at all, and a retaliatory tariff would be based to a certain extent upon sentiment. I do not think we have very much to fear from that source. But for that reason I mentioned in my remarks that the legislation along these lines should probably go easy at first and not be too drastic. We should feel our way, because we are tread-

ing to a certain extent upon unknown ground, and we should go carefully, so as not to be under the necessity of receding.

I thank you gentlemen for your attention.

Senator MARTIN. We are very much obliged to you for your very intelligent statement.

STATEMENT OF WALTER A. POST.

Mr. POWELL. The members of the Merchant Marine Commission sat up very late last night and were out this morning soon after 7 o'clock, and shortly after 8 I think they were going through the shipyard. I tell you this, gentlemen, to show you how earnest they are in an effort to gain information on the question under consideration.

While at the shipyard Mr. Post showed them through, and near the upper end of the shipyard was an old keel that I think he said was laid there about three years ago, that of a merchant ship, which had been abandoned. I do not think they have built a merchant ship in three years. However, Mr. Post can better tell you about that than I can. I take great pleasure in calling upon the superintendent of the Newport News Shipbuilding and Dry Dock Company.

Mr. POST. Mr. Chairman and gentlemen of the Commission, I should have prepared something in writing to submit to you gentlemen on this occasion, and I would have done so if I had had the time. I am making my excuse for coming before you to-day in a condition where I have to depend very largely upon the questions you may see fit to ask me. Since it was first announced that your Commission would come to Newport News I have traveled across the continent, spent some time on the Pacific coast, and have been pretty busy elsewhere. However, there are a few statements I should like to call to your attention.

Since the Newport News Shipbuilding and Dry Dock Company started business in Newport News it has executed contracts for building ships approximately amounting to \$50,000,000.

Senator MARTIN. Please give, if you can, the date when you commenced, and within what period of time that has been done.

Mr. POST. Say within fourteen years' time. About \$9,000,000 of the money is represented in merchant ships that are now sailing almost exclusively in the coastwise trade. Indeed, I do not know of a single ship that is engaged in the foreign ocean-carrying trade. About \$4,000,000 of merchant ships that we built were purchased afterwards by the United States Government, and they are now in Government service, and the remainder of the contracts executed by our company has been for Government work.

ALL GOVERNMENT WORK.

As you have seen the shipyard to-day, you know that practically all the work we are now doing is for the United States Government. We are, however, very anxious to secure merchant work to do, and I have in mind now an American shipowner who visited me only a few weeks ago, and who stated that he was ready to give us an order to build a ship for him just so soon as it was possible to have that ship built in this country at anywhere near approaching the figures

that he could have it built for abroad. He said if he could have one ship built he would have business for several—that he had studied our facilities and the work we had turned out, and was perfectly satisfied that he should have the ship built at Newport News if it could be built in America.

I made him up an estimate, as close an estimate as it was possible to make, on the character of ship he wanted to start with, and submitted an estimate of about \$260,000 to build that ship. He put those figures in his pocket and went over to England, and while over there he wrote that he had submitted the same general proposition to some English builders, and they told him that they thought they could build such a ship as he wanted for a matter of £25,000, just a little less than half of the lowest figure we could name.

Now, that difference is not altogether due to the difference in the cost of labor and the cost of material in this country. It is principally due to that cause, but there is another factor which comes into the case, and that is that over there they have been building ships, as my friend Parker stated, by the mile and cutting them off into lengths to suit. They have gotten used to building ships cheaply over there; and that will be a factor, I think, well worthy of the consideration of your Commission, that once you enact laws which will foster shipbuilding in the United States, shipbuilders here will begin to build more cheaply.

NATIONAL AID WILL CHEAPEN SHIPS.

There is evidence of that in the construction of Government ships in this country. During the past fifteen years the cost of building war ships in England has been continually increasing, while in the United States it has been decreasing, so that to-day the cost of building a first-class battle ship is only a few dollars a ton more in the United States than it is in England. I see no reason why builders should not, with proper encouragement, be able to build cheaper if they had more work to do, and I hope you will take that factor into consideration.

Another matter which I think is well worthy of your consideration in this connection is the taxation of capital engaged in the foreign carrying trade. I think you will have to apply a number of different remedies in order to put not merely shipbuilding, but the American carrying trade, upon a parity with the foreign trade. If people could be encouraged by that means (and it may be necessary to do so only temporarily) to put their money into ships and send them down into the sea, I think it would help the situation along to some extent.

THE WAGE DIFFERENCE.

Now, as to the building side of the question, going back to that subject, there seems to be a general difference in wages, varying in the extreme, I suppose, from 25 per cent to 100 per cent, between the United States and Great Britain; and the difference between the United States and Germany is still much more marked. There is a difference in the cost of material also. I have no doubt you gentlemen have had before you facts and figures and statistics demonstrating that fact as conclusively as you care to have it demonstrated.

But when you come to sum it all up, it means that just now it will cost to build a merchant ship in this country just twice as much as it will to build the same ship in England.

Representative SPIGHT. Captain, right here, if you were to take a contract to build a number of ships of the same style and standard, you could build them very much cheaper than you could build one?

Mr. Post. Unquestionably.

Representative SPIGHT. That is one advantage which foreign shipyards have over ours—they are building constantly, while we have but little to do, and it costs much more relatively to build one ship than to build a number of them.

Mr. Post. That is quite true.

ADVANTAGES OF STANDARDIZING.

Representative SPIGHT. If you could standardize you could build them much cheaper?

Mr. Post. Yes, sir. The older English shipyards have been in existence from fifty to a hundred years. They have standards for everything. They have their plans, their patterns, their templets, and their workmen. In this country the workmen have to be educated.

Senator MARTIN. I do not know whether it would be more agreeable for you to go on with your remarks or to be asked some questions at this point.

Mr. Post. I shall be very glad to have you ask me any questions now because I have not prepared anything. I am speaking as things come into my head.

Senator MARTIN. Your estimate is that right now it costs about twice as much to build a ship in this country as in England.

Mr. Post. Yes; a freight-carrying ocean steamer.

Senator MARTIN. Is it not true that right now there is great depression in the shipbuilding industry in England, which has brought about an exceptionally cheap market there; they are willing to build more cheaply than they have been doing in the average of the years back, or than they are likely to do in the future. It is not at the lowest ebb now?

EXCEPTIONALLY CHEAP ABROAD.

Mr. Post. I think so, Senator. The prices at which ships can be built in England now are very low.

Senator MARTIN. Exceptionally low?

Mr. Post. Exceptionally low.

Senator MARTIN. You do not contemplate that that discrepancy as between this country and England is likely to continue for any great length of time?

Mr. Post. I think it depends very largely upon the outcome of the work of this Commission when Congress meets. I have a representative abroad now. He has been traveling all over Europe. In every letter I get from him he says, "I find the shipowners over here are all very much interested in the Merchant Marine Commission. They say if that Commission does anything, if any laws are enacted encouraging American shipping, they will gradually have to go out

of the business over here. They think that the United States will get the business and they are all hesitating about building. They are fixing up their old ships, and getting along with them the best way they can, and they are not building very many new ships." I had hoped to get a definite statement in writing to present to you, giving the exact words used by some of those people, but the mails have not brought it. I am very sorry I haven't it to submit to you.

Senator MARTIN. If any data that may be helpful in the solution of this problem should arrive between now and the 1st of December, we shall be very glad if you will forward them to the Commission at Washington.

Mr. Post. Thank you. I will be very glad to do so, Senator. Is there any other question you desire to ask me?

Senator MALLORY. I should like to ask you one question. I understood you to say that they are building very few ships over on the other side?

Mr. Post. Yes, sir; comparatively few.

Senator MALLORY. Do you know why that is?

LOOKING TO AMERICA.

Mr. Post. I think one of the principal reasons is, that the ship-owners are afraid to put their money into ships just now, because they think if the United States enacts laws which will enable her to carry her own goods in her own ships there will not be so much use for foreign ships. Therefore it would be an uncertain investment.

Senator MALLORY. That you think is the reason why there are so few ships building?

Mr. Post. I think that is one reason. As I stated, the reason why I think so is on account of the reports I have received from the representative I have in England. He has been all over England, France, Germany, Austria, Norway, and Sweden.

Senator MALLORY. Is it not a fact that at certain periods there is less demand for shipping than at others? Does not the demand for shipping fluctuate from time to time just as does the demand for everything else?

Mr. Post. It does, Senator.

Senator MALLORY. Is it not a fact that at many seasons ships—these English tramps, for instance—are laid up wholesale, you might say, many hundreds of them to be found out of commission, because it does not pay to run them?

Mr. Post. At times that is true.

Senator MALLORY. Do you know whether that is the case now?

Mr. Post. I do not think that is the case now. I do not think there is any abnormal number of English tramps laid up at this time. If so, I am not aware of it.

MORE SHIPS, CHEAPER SHIPS.

Senator MALLORY. In the event that there should be any favorable legislation by Congress, do you think the price for the construction of ships in this country would go down?

Mr. Post. I think the cost of building ships in this country would

become less if there were more ships to be built. I am sure it would. The shipbuilders of this country are in such condition now that in order to keep our shipyards going we are glad to get work if we can just turn the money over, in the hope of better times in the future. If we had a dozen ships of a certain class to build, or even half a dozen ships, for one of which we would be obliged to charge, as an illustration we will say, a quarter of a million dollars, and that would represent the exact cost, on the same figure for the larger number of ships we could make a very respectable profit.

Senator MALLORY. You do that in the coastwise business?

Mr. Post. In our coastwise business there are very few ships to build.

CHIEFLY COASTERS.

Senator MALLORY. Are not vessels for the coastwise trade principally what you build?

Mr. Post. They are, principally. It takes a certain number of ships to carry on the business. I may say right here that if our plant had been engaged in building merchant ships during the past fifteen years, it could have built every merchant ship that has been built on the Atlantic coast during that time, and there are a number of other shipyards capable of building a great many ships.

Senator MALLORY. I have heard it stated before this Commission, I believe, that if we were to undertake to build ships to transport American products the capacity of American shipyards would not enable us to turn out a sufficient number of ships within the next ten years, if they had every opportunity to build, taking the plants as they are now. Have you anything to say on that point?

OUR SHIPYARDS ADEQUATE.

Mr. Post. I do not think there is any doubt about it that in the next ten years the American shipyards could build all the ships which would be required at the expiration of that period of time, because if there was the work to do the capacity of every shipyard could be expanded and they could do more than they are now fitted to do.

Senator MARTIN. How many men have you on your pay roll now?

Mr. Post. About 7,800.

Senator MARTIN. What is the aggregate of the pay roll per week, approximately?

Mr. Post. Our pay roll runs between \$65,000 and \$90,000 a week. That variation is largely due to the amount of overtime work that is done. We work a good many men nights as well as during the day.

Senator MARTIN. Suppose legislation should be enacted creating a demand for American-built freight-carrying ships and that the law provided that it should not go into effect until the expiration of twelve months. At the end of twelve months what would be the capacity of your yard toward supplying ships to meet that demand?

Mr. Post. At the end of twelve months we would be in condition to turn out ten ships of a capacity of between 6,000 and 7,000 tons each.

Senator MARTIN. You think you could have them ready for use at the end of the year?

Mr. Post. I think before the end of the first year we could have some of them ready.

Senator MARTIN. How many?

TEN A YEAR.

Mr. Post. Probably three of them would be delivered before the end of the first year, and after we began delivering them we could deliver one ship of the class I have mentioned a month right along; say ten a year on the average.

Senator MARTIN. Of what capacity?

Mr. Post. Six or seven thousand tons carrying capacity.

Senator MARTIN. What would be the speed of those ships?

Mr. Post. I should say the speed would be 10 to 12 knots per hour, averaging, say, 11 knots. That is considered economical speed. It is a little faster than the ordinary English tramp.

Senator MALLORY. Could you broaden that a little and give an estimate as to what would be the capacity of all the American shipyards after twelve months' notice, such as Senator Martin has referred to, to turn out ships?

Mr. Post. It would be pretty difficult to make an estimate.

Senator MALLORY. I do not expect you to be very accurate, but I should like to have an estimate based upon your knowledge of the leading shipyards of the country—Cramps and the New York Company and the others.

Senator MARTIN. You might get at it in this way, approximately, although it would not be much more than a guess—how many times could your product be multiplied by all the other shipyards in the country?

Mr. Post. In the figures I have given you I have stated the capacity of our shipyard as it is now.

Senator MARTIN. Yes.

OUR SHIPYARD CAPACITY.

Mr. Post. Our shipyard has never yet worked at its most economical capacity. We should have at least 10,000 men working in our shipyard; our facilities are equal to that number. In answer to your question, I should say that all the other shipyards would immediately, if there was a prospect of work, increase their facilities and increase their force of labor. The first year would be, of course, the most difficult year, because large numbers—thousands and thousands—of men would have to be educated to the work, inasmuch as such workmen do not exist in this country. But they can learn; we have demonstrated that right here in Virginia. We have right here now the largest force working in the shipbuilding business anywhere in the United States, and a great many of them are people who are native to the soil and had no experience whatever in a shipyard until they started in here.

In some of the large cities, for instance, in Philadelphia the Cramps have been in existence for a great many years, and they have a larger labor market to draw on. But even there to increase the force largely they would have to educate the men. After the first year, however, that would not be very difficult, because there would be

more educators. Every workman educates his fellow workman who works alongside of him or works within sight of him.

DOUBLE AFTER A YEAR.

So I should say that while the normal capacity probably of all the shipyards in this country to-day would not turn out in the first year more than 60 or 70 ships, taking all the yards, large and small, the second year they would more than double that number, because they would have gained in experience. They would have gained in being able to standardize. They would have gained in the confidence and in the experience acquired by the workmen. So while it would take probably nine months to turn out the first ship complete from the date of making the contract and starting the plans, yet when we come to get down to the second year a ship would be turned out in six months from the time of starting.

Senator MARTIN. You could do it now in about nine months?

Mr. Post. Yes, sir; in about nine months, and be sure of that, and take care of a large quantity of other work.

Senator, I understood that your Commission was anxious to get direct statements as to the cost of labor in this country and in England, and I have had come here some of our leading men in the shipyard who have worked in English and Scotch shipyards, and if you would like to hear from them I can call one of them.

Senator MARTIN. We shall be very glad to hear from them.

Mr. Post. They can give you definite statements.

Senator MARTIN. Indicate who they are, and we will call them.

Mr. Post. Suppose you call Mr. McAlpine.

STATEMENT OF GILBERT B. McALPINE.

Gilbert B. McAlpine appeared before the Commission.

Senator MARTIN. You are now employed in the Newport News shipyard?

Mr. McALPINE. Yes, sir.

Senator MARTIN. In what capacity?

Mr. McALPINE. In the hull drawing room.

Senator MARTIN. How long have you been employed in that capacity?

Mr. McALPINE. In the office I have been five and a half years.

Senator MARTIN. Were you employed with some company previously?

Mr. McALPINE. No; previous to that time I was for over twelve years employed by the Clyde Bank Shipbuilding Company. The name was James and George Thompson (Limited).

Senator MARTIN. Where is that located?

Mr. McALPINE. It is on the river Clyde, 6 miles from Glasgow.

Senator MARTIN. You were there 12 years?

Mr. McALPINE. Over 12 years.

Senator MARTIN. Before you came here?

Mr. McALPINE. Yes, sir.

Senator MARTIN. Were you employed in substantially the same capacity there as here?

A FOREMAN ABROAD.

Mr. McALPINE. I started outside in the practical work, and came up, and I was in the capacity of foreman in that yard.

Senator MARTIN. Did you ever in that yard do work similar to that you are doing here?

Mr. McALPINE. I did for one year.

Senator MARTIN. Did you come directly from that yard to this one?

Mr. McALPINE. I came to New York and came down here looking for work.

Senator MARTIN. What compensation are you receiving per day here for the work you are doing?

Mr. McALPINE. I get about the rate of 71 cents an hour.

Senator MARTIN. 71 cents an hour?

Mr. McALPINE. Yes, sir; about.

Senator MARTIN. What compensation did you get from the company on the Clyde for the same class of work during the year you worked there?

Mr. McALPINE. About the rate of \$15 per week.

Senator MARTIN. \$15 per week?

Mr. McALPINE. Yes, sir.

Senator MARTIN. How many hours did you work over there?

Mr. McALPINE. We worked from 9 o'clock to 12:30 and from 1.30 to 5.

Senator MARTIN. How many hours do you work here at the Newport News yard?

Mr. McALPINE. 8½ hours per day.

Senator MARTIN. 8½ hours per day?

Mr. McALPINE. Yes, sir.

Senator MARTIN. In the other capacities in which you worked in foreign yards, how did the rate of compensation there compare with the compensation for like work here?

Mr. McALPINE. I have a statement of the rates of wages of the different trades.

FOREIGN AND AMERICAN WAGES.

Senator MARTIN. We shall be very glad if you will let us have it.

Mr. McALPINE. I got this up hurriedly. I did not go much into detail. It is up to 1901, three years ago. The following is a list of the rates of wages paid for a working day of ten hours per day: Machinists, \$1.60 to \$2 per day.

Senator MARTIN. This is at the Clyde yard?

Mr. McALPINE. Yes, sir. Plumbers, \$1.80 to \$2; joiners, \$1.80 to \$2; carpenters, \$1.60 to \$1.80; pattern makers, \$1.80 to \$2; fitters, \$1.60 to \$1.80; molders, \$1.80 to \$2. This, I may state, for the time that I had to get it up, is what I remember of the different rates.

Senator MARTIN. Can you give the rates in this yard for the same class of work?

Mr. McALPINE. No, I can not; but I suppose Mr. Post will be able to give you anything you want in that line. But these were the rates that I was in the habit, and the other trades were in the habit, of getting on the other side.

Senator MARTIN. You are a native of Scotland?

Mr. McALPINE. Yes, sir.

Senator MARTIN. Are you a naturalized citizen?

Mr. McALPINE. I have my first papers and am entitled to my second papers now.

Senator MARTIN. Do you expect to perfect them and to make this your permanent home?

Mr. McALPINE. Yes, sir.

Senator MARTIN. How does the condition of the men in this yard compare with the condition of the men in foreign yards, in their modes of life, their enjoyment of comforts?

Mr. McALPINE. I should say, taking them all through, that I believe they have more comforts here. The state of living is really better than it is on the other side.

Senator MARTIN. For the wages you get here you can live better than you could live there for the wages you received there?

Mr. McALPINE. Yes, sir; a little better.

Senator MALLORY. Do you know whether all the employees of this yard are paid by the hour instead of by the day?

Mr. McALPINE. No. I refer you to Mr. Post for that information.

Senator MALLORY. You do not know about anyone except yourself?

Mr. McALPINE. Just myself.

Senator MARTIN. That is all we will trouble you for. We are much obliged to you.

STATEMENT OF ARCHIBALD SHANKLAND.

Senator MARTIN. Whom shall we call next, Mr. Post?

Mr. Post. Would you like to hear one or two more of these men?

Senator MARTIN. We might have one more on the same line.

Mr. Post. I suggest that Mr. Shankland be called.

Archibald Shankland appeared before the subcommission.

Senator MARTIN. Will you please tell us in what capacity you are employed in the Newport News yard?

Mr. SHANKLAND. Foreman of the riveting department.

Senator MARTIN. How long have you been engaged in that employment?

Mr. SHANKLAND. Nearly ten years and a half.

Senator MARTIN. In this yard?

Mr. SHANKLAND. In this same yard.

Senator MARTIN. Do you recall the price which you received when you first came here?

Mr. SHANKLAND. Yes, sir.

Senator MARTIN. We would be glad to know what you started in on per day.

Mr. SHANKLAND. I do not get paid by the day. I get paid by the week; so much per week.

Senator MARTIN. We would just as soon have it by the week as by the day.

Mr. SHANKLAND. I got \$25 a week when I started.

Senator MARTIN. What does it amount to now?

AN INCREASED WAGE.

Mr. SHANKLAND. \$40 per week.

Senator MARTIN. I suppose it has been raised from time to time——

Mr. SHANKLAND. From time to time.

Senator MARTIN. Until it has got up to \$40 per week?

Mr. SHANKLAND. Yes, sir.

Senator MARTIN. There are, of course, other foremen? There are a number in like employment in this yard?

Mr. SHANKLAND. Oh, lots. There is a foreman in every department, with assistants under him.

Senator MARTIN. In the riveting department there is more than one.

Mr. SHANKLAND. Oh, yes.

Senator MARTIN. The amount paid to you, I suppose, is the standard?

Mr. SHANKLAND. No, I am at the head; the others are assistants.

Senator MARTIN. Are you the head for the whole yard?

Mr. SHANKLAND. No, for the riveting department. It is divided into departments.

Senator MARTIN. I understand; but are there no others? I supposed they had a foreman for a certain number of men.

Mr. SHANKLAND. We put on an assistant; one to assist.

Senator MARTIN. So there is no other one who gets as much as you do?

Mr. SHANKLAND. No, sir.

Senator MARTIN. What do the assistants get?

Mr. SHANKLAND. My first assistant gets \$21 a week.

Senator MARTIN. And the others?

Mr. SHANKLAND. The others get from \$18.

Senator MARTIN. \$18 a week?

Mr. SHANKLAND. Yes, sir.

EXPERIENCE ABROAD.

Senator MARTIN. Have you worked in foreign yards?

Mr. SHANKLAND. Yes, sir.

Senator MARTIN. What foreign yards?

Mr. SHANKLAND. The Fairfield shipbuilding yard, on the Clyde; and the London and Glasgow Shipbuilding Company, on the Clyde, and another yard. I forget the name; a small yard. It is far up on the Clyde. I can not just recall the name.

Senator MARTIN. That is immaterial.

Mr. SHANKLAND. Yes; it is R. A. McClellan.

Senator MARTIN. Did you work in the same capacity over there?

Mr. SHANKLAND. No, sir; just as a journeyman.

Senator MARTIN. Do you know what wages were paid at the time you worked over there for work similar to that done by you here now?

Mr. SHANKLAND. Let me see. It would vary according to the size of the yard, from £3 to £3 15s.

Senator MARTIN. £3 15 s.?

Mr. SHANKLAND. From £3 to £3 15 s. a week; that is, taking the different size yards.

Senator MARTIN. £3 to £3 15 s. per week?

Mr. SHANKLAND. Yes, sir; may be from £3 to £4. That would be from \$15 to \$20.

DOUBLE WAGES HERE.

Senator MARTIN. The pay here is more than double.

Mr. SHANKLAND. Yes, sir; only on this side the calkers, the iron calkers, and riveters go together. On the other side they make two branches of it. They have two headmen there instead of one here. We take the two together.

Senator MARTIN. How many hours do you work here?

Mr. SHANKLAND. Ten and one-quarter hours.

Senator MARTIN. Ten and one-quarter hours here in this yard?

Mr. SHANKLAND. Yes, sir.

Senator MARTIN. How many hours in the foreign yard?

Mr. SHANKLAND. I worked different hours; from fifty-one hours per week to fifty-four hours per week. Fifty-four hours is the standard now.

Senator MARTIN. Fifty-four hours a week?

Mr. SHANKLAND. Yes, sir; that is about nine hours a day.

Senator MALLORY. Can you state what wages the ordinary riveter on the other side gets?

Mr. SHANKLAND. Yes, sir. The ordinary riveter for the day's wages would get \$1.40 in our money.

Senator MALLORY. \$1.40?

Mr. SHANKLAND. Yes, sir. We pay \$2.25, but the riveting is done mostly by piecework.

Senator MARTIN. Abroad or here?

FOREIGN AND AMERICAN RATES.

Mr. SHANKLAND. Both places. In fact, they do more piecework there than we do; but it is virtually piecework on both sides. There are different sizes of rivets. To illustrate the difference in price, I will say that for shell riveting, inch rivets, we pay \$4 per hundred. Over there they pay \$2.90 per hundred. For deck riveting, five-eighths rivets, they pay about \$1.50, and we pay \$2.25. Those are two cases.

Senator MALLORY. A man's wages depends upon the number of rivets he puts in in a day?

Mr. SHANKLAND. Yes, sir; it is payment by results.

Senator MALLORY. Do you know anything about the wages of employees in the other departments of this shipyard as compared with the English and Scotch yards?

Mr. SHANKLAND. It is something the same as in the riveting department. The standard rate for fitters, for instance, is about \$2.75 here. On the other side it would be 8d. an hour. Just about the same difference—25 or 30 per cent difference. That is in the Clyde district.

Senator MALLORY. Twenty-five or 30 per cent difference?

Mr. SHANKLAND. Yes, sir.

Senator MALLORY. In favor of this side?

Mr. SHANKLAND. Yes, sir; that is, in the Clyde district. The wages I am stating now are not the lowest. They are for 1898. They are lower now. They rise and fall over there much more than here.

Senator MARTIN. The scale of wages is more stable and fixed here than there?

Mr. SHANKLAND. Yes, sir.

ADDITIONAL STATEMENT OF WALTER A. POST.

Mr. Post. I have jotted down the average wages paid in our yard now for the different trades mentioned. They do not represent the highest.

Senator MARTIN. But the average?

Mr. Post. Yes, sir.

The statement is as follows:

	England.	United States.
Ship fitters	1.60-1.80	2.25
Machinists	1.60-2.00	2.75
Plumbers	1.80-2.00	2.50
Ship carpenters	1.60-1.80	2.50
Joiners	1.80-2.00	2.75
Pattern makers	1.80-2.00	3.00
Molders	1.80-2.00	2.75

These figures are averages.

Representative SPIGHT. I should like Mr. Post to make a statement as to the piecework of which the last witness spoke.

Mr. Post. The custom among riveters in doing piecework is to work each day until they earn a day and a half's pay at the day rate. For instance, men whose day rate for ten hours would be \$2.25, when they work piecework earn \$3.37, and always quit work before the other men who are on day's work.

Representative SPIGHT. They do not put in as much time?

Mr. Post. No, sir. It illustrates the amount of earnings they make for each day.

Senator MALLORY. I should like to ask Mr. Post, before he sits down, whether they work at the yard at night. When you have any special necessity to be very expeditious, do you employ men to work overhours?

Mr. Post. Oh, yes; we do that always; some of it.

Senator MALLORY. Always?

EXTRA PAY FOR NIGHT WORK.

Mr. Post. Yes, sir. And at times we work a regular night gang.

Senator MALLORY. Are the wages of the men who work at night any different from those of the men who work in daytime?

Mr. Post. No; they are the same, except in cases where it is necessary to work the same men both day and night. Then they have a regular schedule of rates for the extra hours they make. As an illustration, we were fitting out some boats for the Government during the Spanish war where we had to work just as many men as we could

get to turn the boats out quickly. Very often we would have to work men until midnight every day, and they would get time and a half for the hours between 6 o'clock and midnight.

Senator MALLORY. By "time and a half" you mean one-half more pay?

Mr. Post. One-half more pay for the extra hours. In a few cases where something has to be done at once and within twenty-four hours—men can not stand working at that rate any great length of time, but they can sometimes stand it for twenty-four hours—they get double time between midnight and morning. They get double time for holidays, and whenever it is necessary for them to work on Sunday they get double pay for that.

Senator MALLORY. Do you know whether that is customary on the other side?

Mr. Post. I do not know to what extent they do it on the other side, but I think they have some similar arrangement. I do not think it is the same as we have here.

VIEWS OF REAR-ADMIRAL P. F. HARRINGTON.

Senator MARTIN. I have received a communication from Admiral Harrington, which will be printed in the record.

The letter referred to is as follows:

NORFOLK, VA., *November 18, 1904.*

MY DEAR SENATOR: Shipbuilders, merchants, manufacturers, miners, and farmers are not more interested than the Navy in the recovery of an American merchant marine. I beg to present for your consideration a few remarks on the subject. Admiral S. B. Luce, of our Navy, has studied during many years the mutual relations of the Navy and merchant marine, and I wish you could hear him, for I can do little more than epitomize some of the matters with which he is familiar. If you would like to talk with him when in Washington I have no doubt that he would meet you and give you interesting information.

Barter and exchange of commodities is a natural condition of human life, and trade is an essential element of national greatness. While it is true that the United States has vast contiguous territory and all products necessary to its existence through internal commerce, its exchanges with foreign countries form the true cause and measure of its prosperity, alike in the products of its mines and soil, manufacture, and science. Passing the mental achievements of its people, the highest mark of material attainment is found in the expansion of the sea-borne trade of the United States to more than 2,000 millions of dollars.

For the protection of this vast interest a navy is essential, and its necessity is enhanced by recent acquisition of external territories and the assumption of the duty of construction and protection of an inter-ocean canal. The maintenance of a navy imposes upon the United States the selection and training of a large body of men, the most of which must be recruited from its citizens. The annual supply for the navy of Great Britain exceeds 5,000 men, and that country provides for the enrollment of a national naval reserve from the long-service men of its navy. Great Britain has also a vast merchant

marine, composed of men inured to sea life, from which may be drawn in time of war a contingent force of great value, if not equal to the trained reserve.

TWIN OF THE NAVY.

The United States has little of either source of naval supply. We can build ships, but we have not solved the problem of keeping the fleet manned by seamen in time of war, and mere landmen can not hold and defend naval squadrons. In all ages the armed sea force and the commercial marine have been mutually dependent, neither attaining just proportions and successful existence without the protection of the one and the support which springs from the other. A commercial marine for the United States is the twin of its navy, the life of each dependent upon the other.

The sea-borne trade of the United States is now almost wholly in foreign bottoms and handled by men alien to its flag. In time of war the fleet can secure but few recruits, seafaring men, outside of the limited and inadequate supply of men trained under the flag. The vast sums expended annually in payment of freights upon our exports and imports are subsidies for the support of foreign merchant seamen who are drawn largely in time of war into foreign navies. Through the lack of our own merchant marine and contribution to foreign merchant marines we provide a force of hardy seamen for others; we forge weapons which shall be turned against our own navy in time of greatest need.

From the standpoint of national defense and of protection to the vast interests under our care the nation is as deeply concerned in the development of the merchant marine as in its existence as an essential element of commercial prosperity and national greatness.

A VALUABLE RESERVE.

The foregoing statement is of the main conditions which militate against our national security, but there are collateral circumstances which produce effects in the same menacing direction. Freight, insurance, and the wages and subsistence of a vast body of seamen are not the only contributions to a system which depresses and depletes our capacity for national defense. There is caused also a demand for ships and a great work of repairs for foreign merchant marines, in which are trained a great body of ship's artisans who have an intimate knowledge of the mechanical appliances which they produce.

These men lack the sea habit, but they are otherwise adapted to the care of electrical, hydraulic, pneumatic, steam, and other machines installed in the fleet, and they form a very important supply of trained mechanics for a navy when war drives the merchant ships from the sea. The existence of a merchant marine is an element of national strength as well as of national prosperity. The benefits which accrue to the national power from the merchant marine are clearly discerned by foreign countries, and their laws and maritime regulations guard carefully the sea-borne commerce. Construction, survey, and inspection of ships, and training of merchant officers are subjects of continuous and anxious supervision.

Laws are adopted to encourage shipbuilding and to provide profit-

able employment for the completed ships. In sharp competition, freights and insurance are adjusted to favor employment of their own. The discrimination in favor of a flag is seldom forgotten or waived. The official reports of our own bureau have shown many of these methods by which our own merchant vessels have been placed at a disadvantage.

Without entering upon other branches more nearly relating to commercial interests, it may be justly asserted that the ultimate effect of the absence of a great merchant marine is a deplorable limitation of our relative naval resources and power.

Very respectfully,

P. F. HARRINGTON,

Rear-Admiral, U. S. Navy, Commandant Norfolk Navy-Yard.

Hon. THOMAS S. MARTIN.

STATEMENT OF JOHN GOLDEN.

Mr. POWELL. From your correspondence I take it that you want to hear not only from shipbuilders and owners, but also from seamen.

Senator MARTIN. We should like to hear from seamen.

Mr. POWELL. We have with us Mr. Golden, of the Sailors' Rest. He is in touch with a great many seamen, and I think he can give you some information along this line.

Senator MARTIN. We shall be very glad to hear from Mr. Golden.

JOHN GOLDEN appeared before the subcommission.

Senator MARTIN. State your occupation, and give us such suggestions as you can offer.

Mr. GOLDEN. I am superintendent of the Sailors' Rest.

I should like to say that in the month of October in the port of Newport News we had something like 25 foreign ships. Some of those ships came for bunkers, but a great many loaded general cargoes and carried them away from here. I should like to say to the gentlemen—although, of course, they are perfectly aware of the fact already—that the American shipbuilder has not so much to compete with, though he has a great deal, in the regular organized lines of steamships that ply between our ports and other ports, as he has with the English tramp. And not only with the English tramp, but with the Norwegian and Swede. In fact those ships are cutting out the English tramps. As you gentlemen are aware, those ships have not any home port. They go about from port to port on the American continent and pick up a little here and a little there.

OUR VANISHING SAILORS.

The upbuilding of the merchant marine is a question to which I have not given a great deal of study. I have been more interested in the men who come into port, both foreign and home. It has been brought to my notice very recently and very often that the American sailor is a thing of the past; he is dying out for the simple reason that there are so many Scandinavian sailors coming on our coasts, taking the place of American sailors, and, besides, the American boy has better inducements on shore than he has on sea.

There is one other matter I should like to bring before you gentlemen before I close the few words I have to say, and that is in regard

to the shipping masters in our port. We have a shipping master in this city who has been extorting blood money. In many instances the shipping masters steal men off the ship; they "shanghai" them aboard foreign ships, and the men not only lose at the end of the voyage, but as a general thing are discharged in a strange port and do not have a dollar in their pockets. The shipping master gets it before they leave.

They will draw money in advance, and the man when he gets to the other port, in Germany or England or France, wherever it may be, is penniless. The crimps lie around here and steal men, but of course the law to a certain extent has limited them in their power. But at the present time there is a great deal being done in this port and in Norfolk and in almost every other port in the country. It has not been carried on to such a great extent in the city of Newport News in the last six months as formerly, because the law has been getting after them, and some of them have been run out.

As I said, some of those ships that came in the month of October came after bunkers, but most of them, I believe, were for general cargo. If you gentlemen have any questions to ask, I will be glad to answer them to the best of my ability.

THE SAILORS' REST.

Senator MALLORY. What is this Sailors' Rest that you belong to?

Mr. GOLDEN. It is an organization, sir, called the Virginia Mariners' Friends Society.

Senator MALLORY. Is it religious or philanthropic?

Mr. GOLDEN. Both social and religious. The purpose is, when the sailor is ashore, to help him morally and spiritually.

Senator MALLORY. In connection with the Seamen's Union?

Mr. GOLDEN. No, sir; it is independent of the union.

Senator MALLORY. You are aware of the fact, of course, that Congress a few years ago passed a law prohibiting advance wages to sailors in coastwise commerce?

Mr. GOLDEN. Yes, sir; on the coastwise trade.

Senator MALLORY. What do you think of that rule?

Mr. GOLDEN. It is all right on our coast, but it does not apply to the foreign trade.

Senator MALLORY. I know it does not. I am asking you what you think its effect is? Is it beneficial or otherwise to the sailors?

Mr. GOLDEN. Yes, sir; it is beneficial.

Senator MALLORY. Do you think it ought to apply in the case of foreign shipments?

Mr. GOLDEN. Yes, sir; undoubtedly I think it ought to.

Senator MALLORY. That would leave the sailor without means of getting any advance at all. Do you think it would be advisable to have a man ship on a foreign ship without any money at all to get his bedding?

Mr. GOLDEN. No, sir. But here is the point: The shipping master we have here has a saloon attached to his place, and of course a sailor goes in there and gets a little "booze" if he wants it, and if he gets drunk the shipping master has so much charged to him. I know, when an American ship came in here some two months ago, the ship that was converted into a barge—the American ship *Kenne-*

bec—seventeen of those men were paid off here, and these men here—

Senator MALLORY. That was the end of the voyage?

Mr. GOLDEN. It was the end of the voyage.

ADVANCES IN THE FOREIGN TRADE.

Senator MALLORY. I am speaking of the case of the beginning of a voyage. You say you think the law ought to be extended to our foreign commerce—that is, that the sailor can not get an advance on his wages. I am asking you only for information. How would the sailor get along in buying those little necessities which are essential for him on his voyage if he can not get advance wages?

Mr. GOLDEN. That part of it is all right; advance what is needful.

Senator MALLORY. Then you would have it modified?

Mr. GOLDEN. Yes, sir. What I am getting at is where the shipping master supplies the sailor with drink, and if he gets 50 cents' worth of drinks, he will charge him \$7 on his bill.

Senator MALLORY. Do you not think if any advance is allowed to the sailor, the crimp, or the boarding-house master, or the shipping master, or all of them combined will get it all before the sailor gets to sea?

Mr. GOLDEN. No, sir; I do not see how they could, if it was so arranged that the sailor would simply bring his order to the captain, and the shipping master must bring the statement before the captain, and the captain could not pay it unless he had the sailor's consent to it.

Senator MALLORY. Do you know anything about the condition of the American sailors on board of the few American vessels that sail foreign which you have seen in this port?

Mr. GOLDEN. Their condition?

Senator MALLORY. Their conditions of living and comfort, etc., as compared with those of foreign sailors?

Mr. GOLDEN. It is not to be compared to the coastwise trade.

AMERICAN CONDITIONS SUPERIOR.

Senator MALLORY. I am not speaking of that. I am speaking of the condition of the American sailor on board an American ship going foreign as compared with the condition of an English sailor or a Norwegian or Swedish sailor on one of the foreign ships. Is his condition as good?

Mr. GOLDEN. It is superior.

Senator MALLORY. You think it is superior?

Mr. GOLDEN. Yes, sir; because I have been aboard and seen the quarters they live in and the food they eat.

Senator MALLORY. You are satisfied of that?

Mr. GOLDEN. Yes, sir. I visit those ships as they come to this port.

Senator MALLORY. Is there any suggestion you would make in the way of legislation looking to an improvement of the condition of the American sailor engaged in the foreign service?

Mr. GOLDEN. Really, I do not know, sir.

Senator MALLORY. You do not know of any existing abuse which needs remedying at the hands of Congress?

Mr. GOLDEN. No, sir. There are some of our coasting captains in the room at the present time. They could give you some light on that question.

Senator MALLORY. I thought perhaps you had some suggestions to make, as you have had experience.

Mr. GOLDEN. No, sir.

STATEMENT OF CAPT. W. R. BOUTWELL.

Mr. POWELL. I understand that Captain Boutwell, of Norfolk, is present, and has a paper which he wishes to read.

Senator MARTIN. We shall listen to him with pleasure.

Mr. BOUTWELL. Mr. Chairman and gentlemen of the Commission, I am under the impression that this matter has been pretty well thrashed out, and that you are in possession of more facts and figures than perhaps are necessary, and so I will apologize for the few additional ones I have brought along with me.

In this paper I have somewhat committed myself to the matter of a subsidy, but I should like it to be understood that I qualify that argument by a certain statement, and that is to the effect that if we are to have ships at all that I, from my humble standpoint, see in subsidies, if not the only, the chief way in which that end is to be accomplished.

The matter under consideration seems not to be a state altogether due to local causes, but rather to foundational conditions, from which comes the general prosperity of the American nation, and will hardly be overcome by the simple energy of competition with foreign bottoms.

To our own prosperity, as paradoxical as it may seem, is due the fact that the shipyards which once dotted our coast have one by one become silent, with a gradually diminishing merchant marine, until at the present time we find ourselves in possession of only a minimum tonnage and the recollections of past proud conditions.

CAUSES OF THE DECLINE.

It is not as difficult to understand the operative causes which have led to a decrease (which is rapidly nearing extinction) as it is to find ways and means for its remedy, when we consider that—

First. The original cost of construction, through higher cost of material and wages, is greater.

Second. The cost of manning American ships is more than elsewhere, and incidentally the system (in actual practice) worse than in any country on the globe. I think the law is all right, so far as I understand the law.

Third. As American vessels on the whole are more liberally provisioned than those of any other nation (barring Spanish), we have an additional factor which obtains but may be overcome when the American will accept stock fish as a delicacy and the proverbial boot-leg coffee in lieu of the genuine article.

Fourth. As the original cost is more, there is of course depreciation obtaining through a greater investment.

Thus we have, in cost of construction, furnishing crews, extra cost of provisioning, and greater depreciation, four prime causes which as

far as individual energy and enterprise go (even that quality which Americans possess) are quite insuperable.

Let us consider each point above separately and briefly by the following figures, which admittedly are only approximate but certainly not, in an average sense, strained:

COMPARATIVE WAGE RATES.

Take, say, a vessel of 5,000 tons carrying capacity and constructed in a foreign shipyard at a cost of \$200,000, we would probably find that the same vessel would cost on this side \$300,000—I do not know how near correct I am—requiring an extra investment of \$100,000, which, at 5 per cent, has its equivalent—a loss of \$5,000 per annum.

Second. The cost of manning English vessel one month—

Master	\$75. 00
Chief officer	50. 00
Second officer	40. 00
Steward	40. 00
Cook	35. 00
Cabin boy	10. 00
Chief engineer	75. 00
Second engineer	60. 00
Third engineer	40. 00
Donkeyman	25. 00
Firemen and coal passers (8)	200. 00
Carpenter	30. 00
Sailors (8)	180. 00
Total	860. 00

or \$10,320 per year, to which can be added for the American 50 per cent additional in wages, or a total of \$15,480 per year, whose excess over and above the English is \$5,160 per year.

Third. The cost of provisioning the above 27 men would be in the English vessel something like \$200 per month, or \$2,400 per year. To the American it would be \$266 per month, or \$800 additional per year.

Fourth. \$100,000 original extra cost, with depreciation on this amount at 3 per cent, gives us \$3,000 more on the losing side of our ships, without including cost of insurance on any part of this \$100,000.

We may sum up the disadvantages as follows:

Cost of running English vessel one year:	
Crew hire	\$10, 320
Provisions	2, 400
Depreciation on \$200,000, at 2 per cent (for English)	4, 000
Total	16, 720
Cost of running American vessel (same tonnage) per year:	
Crew hire (50 per cent additional)	\$15, 480
Provisioning (one-third additional)	3, 200
Interest on extra \$100,000 at 5 per cent	5, 000
Depreciation on \$300,000, at 3 per cent	9, 000
Total American yearly cost	32, 680
Total English yearly cost	16, 720

and we have against the American vessel, as fair estimate, \$15,960 per year, or a loss which is equivalent to 8 per cent on an investment of \$200,000.

That is, granting on the above basis 8 per cent earnings to English vessels, we would find American foreign carriers profitless.

To illustrate further, we may say that as the cost of running the English vessel is \$16,720 per year, we find that the additional cost of \$15,960 to Americans, a loss which would fully man, provision, and pay depreciation on the English vessel, the equivalent of which is that it costs (through general conditions at home) exactly twice as much to run the American vessel.

CHEAPER STILL.

For comparison we have cited the English vessel as the nearest approach to the American in the matter of expense, but that of the Germans, Italians, Norwegians, Danes, Swedes, etc., in point of wages and provisions would certainly not exceed half, and little may we be surprised that our own flag has been swept from the seas originally by English bottoms, which latter nation, however, seems destined eventually to the same fate, as evidenced by the numerous flags of other nations now carrying American products.

Now, the diminished American tonnage in foreign trade and the silence of once busy shipyards, and extra cost throughout, are not due to grasping of profits on the part of our shipowners and shipyards, as the economist will readily see that building and running ships are enhanced by the very backbone and principle of the country's prosperity.

NO REDUCTION OF WAGES.

If crew hire, cost of construction, and all-around added expense are against floating American foreign-carrying bottoms the remedy will not consistently lie in reduction of wages to those who build them, neither in that of port charges, for in the first instance the pay of workmen is only commensurate with general conditions, while in the second case they are on exactly the same footing as foreigners. Neither would we expect the ship chandler to sacrifice his profits, nor the officers and men to go for less, if in the latter case we are to maintain our ships efficiently.

At no particular point must we seek the remedy, as one based on such a principle would be an advantage contributed to in an individual sense (with individual detriment) for the benefit of the whole; but its correction would more reasonably be found through the channel ways of subsidy, whose help would come from the whole people, who in return would receive the benefit which a reestablished prestige of the American flag would bring to the entire nation.

DIRECT SUBSIDY.

And this subsidy should not be based on a principle which would inevitably evoke retaliation of a wholesale and sweeping nature, but by the broad and unchallengeable method of direct national help; against which no nation could raise its voice or threaten our already shattered interests at sea.

I express myself pretty liberally and broadly. I do not pretend to know very much about the manner of subsidizing, and I will not attempt to indicate the method of apportioning the subsidy or any-

thing like that, but I think on general principles the matter of taxing foreign bottoms and admitting ours free—that is, wholesale discrimination of that nature—might evoke retaliation from other nations.

How else, except through direct subsidy, can we meet the matter, which, if otherwise treated, would run counter to conditions with us or antagonize (by unwise discrimination) the shipping interests of other nations?

Must we under the circumstances wonder that the American flag has grown smaller and smaller upon the seas, and the busy shipyards shut down, until attenuation in this branch has reached such a stage that the pulse beats of American foreign-carrying industry (both in building and carrying) are now scarcely perceptible—with not enough left to swell the pride of the smallest civilized nation?

Must we marvel that other countries (where the cost of existence is much less), with less to attract capital within their borders, should build, man, and operate their vessels on a cheaper basis, until that competition has resulted in practically driving the American flag off the seas, while American capital (formerly invested in foreign carriers) has at last taken its stand within the breastworks of our coasting business (the Port Arthur of our commerce), which class of shipping, coincidentally with the decline of our foreign-carrying bottoms, has increased to its present vast proportions, where freight, though not always tempting, is more commensurate with investment, which the product before us amply shows.

OUR SPLENDID COAST FLEET.

Incidentally, we might say that in no sense have profits been drawn from foreign countries in development of our home trade and that the measure of protection given this coasting business has resulted in the upbuilding of the finest class of vessels in the world is a truth most evident, and little can we doubt that with American skill and energy equivalent results would follow the proper impetus given American foreign carriers. Can we not extend to this class something in the nature of a national encouragement?

While other nations are expending their trade relations (through less cost and added subsidy), shall we suffer this attenuation, which is but a secondary phase of a degenerate state obtaining in our foreign trade relations, and a condition whose end must shortly result in utter collapse of the foreign carriers of this country?

Contrast with this contraction of the American merchant marine the acquisition of territorial jurisdiction and the expansion of naval power, which carry with them the maintenance of costly fleets and armies, and let us ask ourselves if there is any reason why American ships should not carry a fair proportion of the cargoes, through ways and means devised by the American people? Or shall we content ourselves by drawing the water through the borrowed buckets of our neighbors?

A NATIONAL PRINCIPLE.

There is just as much common sense in giving impetus through subsidy to American bottoms engaged in foreign trade as there is in national appropriation for irrigation of otherwise profitless western lands, as well as countless millions yearly in harbor appropriations

for the accommodation of the ships of other countries, and a cordon of life-saving stations and light-houses, extending along our coast for thousands of miles, and giving protection to the crews of not only our coasters but the foreign competitors as well.

While many millions are spent annually in establishing and maintaining greater prestige by our Navy on the seas, we are protecting an improverished circulation through means whose very exertion saps its energy; and we must after all ask ourselves if the present game is worth the candle unless there is industry of the American merchant marine to follow in its wake.

The relative development of our navy and merchant marine offers a sharp contrast, as, in Kipling's figurative language, our battle ships have not wives enough, and this destitution on one hand with progress on the other marks a condition obtaining between our mercantile navy and the real fighters which is nothing short of actual prostitution.

We can not patch this delicate work with homespun and wholesale discrimination against foreign bottoms, lest in the matter of retaliation the rent in the last stage be greater than at first. Neither can we expect ripples to do the work, but, instead, we must look for the booming sound of subsidy to bring to the surface this dead body of our foreign carriers.

THE ONLY REMEDY.

Subsidy therefore would appear to my mind as the only remedy which will be effective in the matter of reestablishing American bottoms on the seas.

As to the manner of raising or apportioning this subsidy, I have given no thought, and freely admit my inability to offer anything in definite shape; but as an extremely crude suggestion we will consider that our seacoasts frequently seek appropriations for various purposes, to which the interior and West can not agree, or vice versa; this mutual opposition constituting in many cases a state of inertia where probably there should be agreement.

Likewise in the matter under discussion we would look for cooperation in a common purpose, but before this can be done we must seek some basis of compensation which will equalize interests and difference of opinion between the various sections of the country.

Now, as the West desires irrigation, and the sea and Gulf States subsidy, and as each side receives more or less opposition from the other, we must, if each is to be satisfied, find this law of compensation and its application between them, and until we do it is more than likely that both will be forever clamoring for what they will never get in full.

IRRIGATION AN EXAMPLE.

Assuming that a part want subsidy for their ships, and can get it by acceding to the requirements of others, let those who favor subsidy on one hand concede to the other liberal appropriations which will serve to enhance their interests (and the nation's), we will say, through irrigation appropriations.

In this suggestion, however, we have to make a distinction between giving subsidy to offset the cost of running our ships (a condition which, in a certain sense, is static), and the cumulative effect to

farming regions, out of which will come much (where little was invested) through irrigation improvements.

Subsidy must of necessity be a clear gift, for without it comes a cessation of the conditions for which it is given and natural failure of its purpose. But if, on the other hand, we give—say any amount—\$20,000,000 for instance, we develop out of nothing conditions and improvements yielding prosperity which could well afford to pay back into the Treasury by some easy method the money given for such development.

This is an idea in the rough from which others could probably frame some law of compensation within ourselves and from which may come added prosperity to those who raise, and renewed prestige to those who carry, the products of our country; while between these two poles of prosperity there will result for our railroads and entire nation an active current and a vast betterment of every line of industry.

I have here attempted to show what a subsidy of \$20,000,000 would mean in the offsetting of the simple cost of running our ships as against foreign vessels.

WHAT SUBSIDY WOULD DO.

Take such a vessel as I have cited (quite a small size tramp), and credit to her a loss in competition of \$20,000 per year, and we find that \$20,000,000 will put in commission 1,000 American vessels against foreign competitors; or take them large or small, tramps or mail carriers, and the proportion obtains, which in effect is roughly as follows: About 4 voyages outward per year, gross freight to a ship, \$60,000, or \$60,000,000; voyages homeward averaging, say, one-fourth the outward, \$15,000,000; \$300,000,000 spent during a period of ten years, \$30,000,000; wages to workmen at 4 per cent depreciation on \$300,000,000, \$12,000,000; wages to workmen (replacing) on \$300,000,000, \$12,000,000; credit gain by American wages spent with us, half they get, \$7,240,000; credit gain by one-half their provisions purchased here, \$1,566,000; total extra circulation gained, \$137,806,000, which means, I suppose, retention of that much more gold in the country, and to the above amount I have not added the matter of insurance.

At \$900 per annum per man for total yearly repairs yielding \$12,000,000 is yearly employment for 13,333 men, and when we come to replace these ships and figure on the same basis, we want 13,333 more men, or a total of 26,666, to which can be added another army who produce the material which the first army converts into ships, and I believe the correlative gain does not begin to end here.

Twenty million dollars invested by the Government at a loss of 4 per cent is \$800,000 per year, for which in return we get in added circulation \$137,806,000.

A GOOD RETURN.

Will the economist agree that compensation is adequate? And as regards the proposition previously stated in a crude form we may ask ourselves if we can make out of nothing (through irrigation or otherwise) a thing whose subsequent condition will be self-supporting and cumulative both with respect to valuation and profit, it seems to

me that the thing created could well afford to return by an easy method the vitality first given as impetus, say, at the rate of 5 per cent per annum, when increase gained in taxes on the cumulative improvement would compensate the Government for loss of interest on the investment; and with a gift on one hand and a conditional one on the other, I believe with a proper adjustment of the matter it is probable that the law of compensation would obtain. The only solution is by broad national cooperation which will discover to seaboard, interior, and West equivalent results in the national partnership whose resultant must necessarily be added prosperity for the firm of Uncle Sam & Co.

Now, with respect, Mr. Chairman, to the pay of workmen, I find, after having made during the past week a few inquiries concerning the matter, that I am quite correct. I find, however, as regards pay of the masters, the Englishman in these particular cases receives more, but I know positively that these are exceptions, because the two English vessels are giving \$125 a month to the captain.

Senator MALLORY. Have you the tonnage of the vessels here?

Mr. BOUTWELL. I have not.

Senator MALLORY. Something depends on that.

Mr. BOUTWELL. I can get that a little later.

Senator MALLORY. Large ships pay more than smaller ones.

Mr. BOUTWELL. But in the matter of crew hire I find that the average estimate is somewhat below what I have given there. In my paper I have given the average at 50 per cent more. I find in the crews' wages right through a little more against us than that. It would practically cut it about half. I have three English and one Italian vessels. One of the English ships is operated under American capital, and the captain receives \$140. The master of the English vessel receives \$125, and the other master receives \$125, and the master of the Italian vessel, a quite fair-sized tramp, receives \$80 a month, and the rest of the crew, below the master, do not on an average receive more than half as much as the Americans do.

I will have to add to these tables the statement you wish as to the tonnage of the vessels.

Senator MALLORY. I think that would have some bearing on it.

Mr. BOUTWELL. I can easily get the tonnage and mail the statement to you.

Senator MALLORY. I wish you would.

The statements referred to are as follows:

Cost of manning English steamer of 2,000 tons.

	Pay.	Number.		Pay.	Number.
Master.....	\$125.00	1	Third engineer.....	\$37.50	1
First officer.....	50.00	1	Fourth engineer.....	32.00	1
Second officer.....	35.00	1	Donkeyman.....	27.00	1
Steward.....	32.50	1	Firemen.....	22.50	6
Cook.....	26.00	1	Carpenter.....	20.00	1
Mess-room boy.....	14.00	1	Sailors.....	20.00	6
Chief engineer.....	85.00	1	Boatswain.....	25.00	1
Second engineer.....	55.00	1			

Approximate estimate of provisioning above crew, 88 cents per day per man.

Cost of manning English steamer of 2,500 tons.

	Pay.	Number.		Pay.	Number.
Master	\$125.00	1	Second engineer	\$62.50	1
First officer	50.00	1	Third engineer	47.50	1
Second officer	40.00	1	Fourth engineer	37.50	1
Third officer	30.00	1	Donkeyman	25.00	1
Steward	30.00	1	Storekeeper	25.00	1
Assistant steward	10.00	1	Firemen	22.50	6
Cook	27.50	1	Coal passers	20.00	3
Assistant cook	10.00	1	Carpenter	30.00	1
Mess-room boy	10.00	1	Sailors	20.00	9
Chief engineer	90.00	1	Boatswain	25.00	1

Approximate estimate of provisioning above crew in North Atlantic trade, 30 cents per day per man.

Cost of manning English steamer of 1,900 tons under American management.

	Pay.	Number.		Pay.	Number.
Master	\$140.00	1	Second engineer	\$75.00	1
First officer	60.00	1	Third engineer	40.00	1
Second officer	40.00	1	Donkeyman	25.00	1
Steward	40.00	1	Firemen	22.00	7
Second steward	15.00	1	Coal passers	20.00	2
Cook	35.00	1	Carpenter	35.00	1
Mess-room boy	15.00	1	Sailors	20.00	7
Chief engineer	100.00	1	Boatswain	25.00	1

Approximate estimate of provisioning above crew, 50 cents per day per man.

Inquiries made as to cost of manning English ships develop the following average:

	Registered tonnage.	Crew.
First	2,700	39
Second	2,300	23
Third	1,300	22
Total	6,300	89
Average tonnage each ship	2,100	29½

Wages (average of the three).

	Amount.		Amount.
First officer	\$50.75	Donkeyman	\$25.00
Second officer	39.00	Firemen	22.50
Steward	33.25	Coal passers	17.50
Cook	26.75	Carpenter	31.00
Chief engineer	80.00	Sailors	20.75
Second engineer	56.75	Boatswain	25.50
Third engineer	42.50	Oilers	23.00

Provisioning per day, average per man, 81 cents.

The above average is a consistent one, and while master's pay does not appear here it will generally be found in the ordinary tramp, slightly in excess of the chief engineer, \$5 to \$15.

Cost of manning Italian steamer of 3,000 tons.

	Pay.	Num-ber.		Pay.	Num-ber.
Master.....	\$80.00	1	Donkeyman.....	20.00	1
First officer.....	40.00	1	Firemen.....	16.00	6
Second officer.....	30.00	1	Coal passers.....	12.50	3
Steward.....	20.00	1	Carpenter.....	17.50	1
Cook.....	20.00	1	Sailors.....	12.00	7
Mess-room boy.....	10.00	2	Boatswain.....	22.50	1
Chief engineer.....	80.00	1	Oilers.....	16.00	3
Second engineer.....	40.00	1	Apprentices.....	10.00	2
Third engineer.....	30.00	1			

Approximate estimate of provisioning above crew, 33 cents per day per man.

Representative SPIGHT. If I understand your proposition, your theory is to pay a sufficient sum of money from the United States Treasury to practically equalize the cost of construction and operation of American vessels as compared with foreign vessels?

Mr. BOUTWELL. In figuring on the 20 million subsidy, as set out, the estimate I made there is only in the matter of offsetting the running expenses. I have not taken into consideration the extra cost of construction. My figures are not based on that.

Representative SPIGHT. If that policy were adopted how long do you think it would have to be continued? Is there not danger that it would have to be made perpetual?

Mr. BOUTWELL. I really have not gone into the minute or the exact consideration of the matter at all. I have not attempted to point out any specific fund or to figure out the exact results, because I believed that after all the inquiries made and information received the members of the Commission would harmonize the various views and reach their own conclusions, and I have only endeavored to generalize throughout.

MUST SUBSIDY BE PERPETUAL?

Representative SPIGHT. Do you not think there is danger that under the plan proposed by you the ships would be operated as long as the subsidy continued, and when the subsidy was withdrawn the ships would be withdrawn?

Mr. BOUTWELL. Possibly; but I suppose we must institute in the matter some element of confidence in the American people. We will not expect to build ships and then have a man jump right from under the subsidy like that. I should think that with the giving of a subsidy which would furnish sufficient encouragement for American energy to keep its vessels in competition with others, with the skill and energy and determination Americans have in pushing their way through in any industrial matters, they would find sufficient encouragement to keep their ships in regular competition with the ships of the other nations of the world.

Senator MALLORY. Have you any idea as to how you would suggest a specific application of the subsidy—whether the ships as based on speed and tonnage? Do you consider speed as a factor to be taken into consideration?

Mr. BOUTWELL. No, sir; I have not gone into the matter in any specific way at all. I have only confined myself—

Senator MALLORY. I observed your argument. You said you did not go into details, but I am asking you if you have given the subject any thought in this direction?

Mr. BOUTWELL. It is a matter I have never considered before in my life up to five or six days ago. I have never given, I suppose, two days' thought to it in my life.

NOT TOO FAST.

Senator MALLORY. One very serious objection urged, even by those who favored a subsidy, to the first subsidy bill before Congress was that it attached too much importance to great speed; that it made it the paramount element, and that we need not undertake to build a great fleet of very fast vessels; that they would not be really useful for the purposes of commerce.

Now, to my mind that is a very serious objection. Of course we want vessels to make a certain speed. The ordinary tramp, as I understand, makes from 9 to $9\frac{1}{2}$ or 10 knots an hour, and she performs the work of the world mostly. You have not given that matter any consideration?

Mr. BOUTWELL. No, sir. But if I may be permitted snap judgment on the matter, I should think there should be some manner of apportioning it between the large and the small vessels—those slow and those of great speed. That is a matter which I think requires a great deal of thought.

Senator MALLORY. Mr. Frye's bill did not contemplate making both speed and tonnage the essential factors. But it has been suggested by those who favor a subsidy that the amount of the products of this country carried should be the criterion and basis of value—farm products. That would lend an interest to the subject in the minds of that portion of our population who are not especially interested in maritime matters.

Mr. BOUTWELL. The proposition, so far as I went, was on the basis of parity, in which there should be general satisfaction to all. I do not mean to speak of the various sections of the country in a sectional sense, but I mean in a general sense, where we can apply it as a matter of parity and satisfy everybody. If we can develop the arid lands, or if there is any other method by which appropriations can be given in the interior and the West to offset what the West contributes toward giving to the sea and the Gulf coast—that is the suggestion I was trying to bring out, and only in a general way.

Senator MARTIN. Are you connected with shipping in any way?

Mr. BOUTWELL. Yes, sir.

Senator MARTIN. In what capacity?

Mr. BOUTWELL. I am a pilot.

Senator MARTIN. You are a pilot?

Mr. BOUTWELL. Yes, sir.

Senator MARTIN. Do you live in Norfolk?

Mr. BOUTWELL. Yes, sir.

Senator MARTIN. Are you a member of the Pilots' Association?

Mr. BOUTWELL. Yes, sir.

Senator MARTIN. We are very much obliged to you.

ADDITIONAL STATEMENT OF HENRY E. PARKER.

Mr. PARKER. I should like to reply to the question of Senator Mallory, if it is permissible, about the subsidy being governed by the speed of the vessel.

Confessedly all admit, I believe, that what we are losing is not the passenger business, but the freight-carrying capacity, and the line ought to be drawn in the subsidy, when it comes to that, between those that are purely and simply freight-carrying vessels, and then if we wish to go into the passenger business and compete for it, the question of speed is a very important one. But on freight vessels it should not be a factor in determining the subsidy, because 10 or 11 knots, as Mr. Post mentioned, and as I have found in twenty-five or thirty years in the business, is not a factor. You want a sound vessel and a good vessel, but it does not make much difference in carrying merchandise whether her speed is 10 or 12 knots per hour.

Representative SPIGHT. We want freight steamers.

Mr. PARKER. Vessels with freight-carrying capacity.

At 1 o'clock p. m., the subcommission took a recess until 2.30 o'clock p. m.

AFTER RECESS.

At the expiration of the recess the subcommission resumed its session.

Senator MARTIN. The Commission is now ready to proceed.

Mr. POWELL. The next gentleman to address you is Mr. Bickford.

STATEMENT OF HON. R. G. BICKFORD.

Hon. R. G. Bickford appeared before the subcommission.

Senator MALLORY. What is your occupation?

Mr. BICKFORD. I am a counsellor at law, sir.

The subject with relation to which you gentlemen are making inquiry is one that I have studied with a great deal of interest for a number of years past, and I think if anyone studies it his interest grows, particularly as one expends thought upon it. It has seemed to me to be perhaps as important a subject as could engage the attention of any man. I several months since prepared a statement of my views on this subject, based upon such study as I have given the matter during several years past.

Like all such statements, the presentation of it is in a more or less sophomoric shape. At the same time, every man is more or less enamored of his own ideas, and at the risk of causing some delay to this proceeding and perhaps inflicting the Commission with the tedium inseparable from this statement, I desire to present to the subcommission of the general Commission the views that have seemed to me to have a distinct bearing upon this subject.

The geographical situation of a country often invites, and in some instances compels, the growth of shipping. The spacious harbors and extended coast lines of France and Spain, the fortifications of the Dutch against the encroaching seas, the insular position of England, have each contributed largely to the growth of their respective merchant shipping.

Proximity to the sea and dependence upon it have their natural effect upon shipping. When these conditions concur, unless retarded by ill-considered legislation, the marine progress of such people is assured, and when, under these conditions, wise and provident laws exist, progress will be rapid.

ERRORS OF OTHER NATIONS.

Spain was once as jealous of her military efficiency upon the sea as France is to-day, but, rich with the precious metals of Peru and Mexico, she turned disdainfully away from her merchant shipping, content to leave it to the Dutch and English. And so, when the great Armada that had sailed so proudly from Corunna had been strewn in broken wreckage along the English coast, the sea power of Spain sank to rise no more forever.

France, seeing the menace that hovered about the white cliffs of Dover, has always possessed a powerful naval fleet. Famed for over three hundred years for producing the finest models of marine architecture, France is only beginning to learn the lessons of the Nile—to know that beyond the guns of the English fleet, invisible, but potent, were the mighty reserves of a maritime nation.

Neither Spain nor France attained permanent greatness upon the sea, because neither realized that sea power is only possible to the nation which possesses sea commerce, and, therefore, neither provided the laws which might have rebuilt the Armada, or wrenched a victory at Trafalgar.

On the other hand, a navy is equally necessary for the support of peaceful shipping.

Holland furnishes an instance of the fate of that nation whose law-givers forget this. Its very territory was won from the sea. Its people had been at enmity with the sea and had subjugated it; the ocean had become its willing servant. Its commerce had been extended to the remotest seas. It had become the foremost ocean carrier, and this carriage was the source of its wealth and importance. The might of its navy had bent the stubborn neck of England. Then, contented with their naval glories, and distracted by the French advances upon their land frontiers, the provinces suffered their navy to decay.

England, burning with the memory of her discomfiture, again and again sought battle. Finally the sea returned to its allegiance, and the navy of Holland was irretrievably destroyed. Losing this physical protection, unsustained by provident legislation, the Dutch mercantile marine toppled to ruin.

For more than two hundred and fifty years England has enjoyed an unquestioned marine ascendancy. Because of this, and because her past is our own, and because the limits of this paper do not permit a wider inquiry, the laws of that country may be profitably adverted to.

ENGLAND'S SUCCESS.

At the risk of tedium I do consider that in the examination of this question it is well for us to look with what care we can into the development of England's merchant marine, for she is to-day the foremost shipping nation on earth. What caused her greatness is therefore a matter of supreme interest to us.

It is interesting to observe the care with which, from the earliest period, the lawgivers of England have provided for the growth of her shipping.

Alfred the Great, when successful wars enabled him to turn his eyes to the interests of peace, encouraged foreign trade with the countries of the Mediterranean to the extent of building vessels fitted for that trade and hiring them to merchant adventurers, to whom he also supplied funds to enable them to engage in trade; an instance of marine encouragement which England has again adverted to in her recent Cunard contracts.

Thirty years later Athelstan encouraged his subjects to foreign voyages, ordaining "that every merchant who made three voyages to the Mediterranean on his own account" should be raised to honor and enjoy the privileges of a gentleman.

The creation of the Cinque ports by Edward the Confessor one hundred years later, and the privileges conferred upon the seamen of these ports, with the confirmation of these privileges by William the Conqueror in 1066, was for the purpose of allowing a free maritime growth, unimpeded by the civil or military administrations of the counties of Kent and Sussex.

Richard I continued the encouraging policy of his predecessor, introducing into England the famous laws of Oleron, which had been originally promulgated by his mother.

Edward I followed the same course. Among other instances of encouraging legislation he granted a new and extended charter to the Cinque ports.

MERCHANT SHIPS IN WAR.

Under the influence of these laws England's sea commerce was of rapid growth. Soon the merchant shipping signally proved its value as a military resource. In the one hundred years' war the great fleet of Edward III, numbering 707 ships and manned by 15,000 sailors, was composed almost exclusively of ordinary merchant vessels. This fleet, in the engagement of Sluys, completely routed the French, capturing more than one-half their fleet.

But the inevitable result of the one hundred years' war, and the diversion of merchant ships to military uses, was to throw the carrying trade of England to other countries. The Hanse towns of the north of Europe profited by England's preoccupation.

During the reign of Richard II the merchants of England, becoming alarmed by the large number of foreign ships entering English ports, petitioned Parliament to restrict the privileges to English ships. Accordingly, by act 5, Richard II, chapter 3, it was enacted:

RADICAL PROTECTION.

"That for increasing the shipping of England, of late much diminished, none of the King's subjects shall hereafter ship any kind of merchandise, either outward or homeward, but only of the ships of the King's subjects, on forfeiture of ships and merchandise; in which ships also the greater part of the crews shall be of the King's subjects."

England's merchant shipping, however, having been so greatly

reduced by the effect of war was not sufficient for its sea commerce. Great inconvenience to trade was therefore the natural result of this enactment, and in the following year Parliament allowed the merchants to export and import in foreign ships where no English ships were to be had. By this provision the former act practically became a dead letter. Nor was the situation benefited by a later enactment, declaring that English merchants should freight in English ships, provided that the freight was reasonable and moderate.

England had lost her rank as a maritime nation. Trade upon the sea was in other hands, there to remain until war, or some radical law, should restore to England her lost dominion.

The trade of India and America had passed to Spain and Portugal, confirmed to these countries by papal decrees.

Henry the Eighth's quarrel with the Pope and the Roman Catholic monarchs of Europe made the command of the sea essential to the safety of England.

A navy was resolved upon and the shipyards were soon busy about the restoration. Increased activity in merchant shipping was a natural consequence. The English mariner had watched the cruise of Cabot. The fisheries of Newfoundland promised rich rewards to adventurous seamen. Extensive fisheries were established; a trade with America sprang up.

FURTHER AID.

But English shipping was not to be extended by the influence of the navy alone. The coöperation of the law was needed. This aid soon came.

By the act of 1st Elizabeth, chapter 13, merchants were allowed to use whatever ships they pleased, subject to the payment of alien duties, if alien ships were used. That was the first instance, so far as I know, in which the English laws of shipping were based upon the permissive use of foreign vessels, provided, if foreign vessels were used, a discriminating duty should be imposed as against them. The coasting trade, however, she reserved to British ships. Exactly our own condition during the period between 1789 and 1826.

This act bears a very close relationship to the system of discriminating duties adopted by the United States in 1789.

By treaty Elizabeth secured freedom of trade to the Gold Coast and the Brazils.

As a consequence English shipping rapidly revived, and when Drake and Howard were sent to meet the Spanish Armada they commanded a fleet of merchant ships manned by merchant seamen. With these the Spanish were driven into the North Sea, where the winds and waves fought the battles of the English.

Tooke computes that in 1582 England's merchant marine consisted of only 135 ships. Twenty years later, near the close of Elizabeth's reign, under discrimination in duties which she herself installed, under the influence of wise laws, the number had been increased to 400 ships.

Under her reign the East India Company was chartered, because "such a trade would by degrees add to the shipping, seamen, and naval force of the kingdom," an expectation which was fully realized.

CROMWELL'S NAVIGATION ACT.

But the Dutch had not been idle. The Dutch East India Company, the rival of the English company, had contributed very largely to the growth of Holland's shipping. Rich with its sea commerce, Holland now pretended to the sovereignty of the seas. Cromwell replied with the famous navigation act, by which it was provided:

"That no merchandise, either of Asia, Africa, or America, including also our own plantations, should be imported into Britain in any but English built ships and belonging to England or English plantation subjects, navigated also by an English commander, and three-fourths of the sailors to be Englishmen, excepting, however, such merchandise as should be imported directly from the original place of their growth or manufacture in Europe solely. Moreover, no fish should thenceforward be imported into England or Ireland, nor exported from thence to foreign parts, nor even from one of our own home ports to another, but what shall be caught by our own fishers only."

This famous law was destined to splendidly prove its efficacy. The Dutch retorted with violence. Tromp cruised the Channel with the symbolic broom at his masthead, declaring his purpose to sweep the English from the seas. Then, satisfied with the laurels they had gained, the Dutch retired, but the navigation act remained, and it had struck a blow to the Dutch shipping from which it never recovered.

The naval ascendancy of the United Provinces was not of long duration; England did not rest until by repeated wars she had reestablished her supremacy, and, undoubtedly, this supremacy contributed to the renewed growth of English shipping. Without a powerful navy to protect it, the shipping could not have withstood the constant encroachments of Holland. But with a vigilant navy to give it physical protection, the progress of English shipping under the navigation act was inevitable.

The act of Richard the Second, confining English commerce exclusively to English ships, was not successful, because at the time of the enactment of the law England did not possess a shipping sufficiently extensive for the needs of her own commerce, and Parliament, moved by the inconvenience which followed its enactment, hastened to suppress it.

Therefore, at this moment we could not apply our coastwise navigation laws to foreign commerce, because we do not possess sufficient ships for our foreign commerce, and as a consequence great disarrangement of trade would follow such an enactment.

But at the time of Cromwell's declaration the situation was quite different. Elizabeth's system of discriminating duties and the advantageous treaties which had been made in her reign had reestablished the English merchant marine, so that under Cromwell England possessed a shipping more than adequate for her own needs.

DOUBLED IN TWENTY YEARS.

Within twenty years after the navigation act England's ocean tonnage had doubled.

Charles the Second and James the Second persisted in the principles of the navigation act and extended their scope.

In 1694 William the Third, recurring to a policy which had been inaugurated by Henry VI, granted a bounty of one-tenth of the tonnage and poundage duty to vessels having at least three decks and 450 tons burthen and armed with 32 guns, which should be built within the next ten years.

We have there an instance of admiralty subvention as well as of general bounty to vessels for navigation.

These are early instances of the adoption of the principles of admiralty subventions.

In 1701 England possessed a merchant shipping of 3,281 ships, measuring 261,000 tons—three times the tonnage which she possessed at the time of the Restoration. The subsequent growth of England's merchant marine was amazingly rapid, amounting in 1777 to 950,000 tons, and notwithstanding the loss of 300,000 tons during the eight years' war with America, in 1790 England possessed a total of 1,460,823 tons, a growth of 125 per cent in seven years.

In his *Wealth of Nations*, Adam Smith, referring to the English navigation laws, which had been as generally unpopular among nations as a thoroughly effective shipping system is likely always to be, concludes his discussion of the principle of that law with the following language:

WISEST OF MEASURES.

“As defense, however, is of much more importance than opulence, the act of navigation is, perhaps, the wisest of all the commercial regulations of England.”

Having traced the English laws to the Revolution, we may with profit recur to the early shipping regulations of the colonies of the individual States and of the United States.

The principle of Cromwell's navigation act was the total exclusion of foreign vessels; the principle which always pervaded the American laws was the permissive use of foreign vessels under increased duties; the principle of the act of navigation of Elizabeth as distinguished from that of Cromwell.

In most of the colonial charters discriminating duties were authorized, and in most of the colonies the principle of discrimination was incorporated in the laws.

In 1691 the general assembly at James City, in the colony of Virginia, laid a duty of 4d. a gallon on the importation of certain foreign wines and spirits, if imported in foreign-built ships.

“And for all and every the afore-specified liquors imported in ships or other vessels wholly and solely belonging to the inhabitants of this dominion, and in which the importer hath an interest or part, there shall be paid and satisfied in full satisfaction of all rates, duties and imposts arising by virtue of this act two pence for every gallon only, and that all liquors imported into this dominion in ships and other vessels really and bona fide built within this dominion, and wholly and solely belonging to the inhabitants thereof, and in which the importer hath an interest and part, shall be fully and clearly exempted and freed from the rates, duties, and imposts arising by this act.” (*Laws of Virginia*, April, 1691, 3d William & Mary, Henning's Statutes at Large, 1682-1710.)

The same declaration was made in October, 1705, with respect to tonnage duties and imports provided by that act.

ACTION OF THE FATHERS.

Similar discriminations often appear in the acts of the other colonies. The policy was retained by many of the States until 1789.

Between 1784 and 1788 the Congress of the Confederate States frequently discussed the propriety of an application for a grant of power to regulate foreign commerce, but the effort failed. Massachusetts and Virginia then entered upon a plan to secure separate but concurrent regulations from the several States. Again the effort failed, and the diverse regulations of the several States, passed in the interest of each, without regard to the interest of the other, produced a commercial chaos of which England was the beneficiary.

Commenting on these conditions, Madison says: "Out of this experience grew the measures which terminated in the establishment of a Government competent to the regulation of our commercial interests and the vindication of our commercial rights." (Speech in Congress, 1794).

This question, more than any other, was the cause of the Constitution of this country. It was a feeling upon the part of the American people that its foreign trade and its foreign shipping were not safely and properly provided for that led Madison in the efforts he made, which were finally successful, toward the adoption of the Constitution of the United States.

When the first Congress met under the Constitution, 17 per cent of our imports and 30 per cent of our exports were carried in American vessels. Congress proceeded to lay a duty upon imports wherein, among other things, it was provided:

"That a discount of 10 per cent on all the duties imposed by this act shall be allowed on such goods, wares, and merchandise, as shall be imported in vessels built in the United States, and which shall be wholly the property of a citizen or citizens thereof." (First Congress, session 1. Chapter 3, 1789, First United States Statutes at Large, p. 27.)

To secure swift and powerful ships used in the China trade, the same act granted special discrimination in duties on tea of over 100 per cent.

OUR FIRST SHIP PROTECTION.

A few days later a tonnage bill was passed which provided as follows:

"On all ships or vessels built within the said States, and belonging wholly to a citizen or citizens thereof; or not built within the said States, but on the 29th day of May, 1789, belonging, and during the time such ships or vessels shall continue to belong wholly to a citizen or citizens thereof, at the rate of 6 cents per ton. On all ships or vessels hereafter built in the United States, belonging wholly, or in part, to subjects of foreign powers, at the rate of 30 cents per ton. On all other foreign ships or vessels at the rate of 50 cents per ton.

"SEC. 2. *Provided always, and be it enacted*, That no ship or vessel built within the aforesaid States, and belonging to a citizen or

citizens thereof, shall, whilst employed in the coasting trade, or in the fisheries, pay tonnage more than once in any year.

"SEC. 3. *And be it further enacted*, That every ship or vessel employed in the transportation of any of the produce or manufactures of the United States, coastwise within the said States, except such ship or vessel be built within the said States and belonging to a citizen or citizens thereof, shall, on each entry, pay 50 cents per ton.

"SEC. 4. *And be it further enacted*, That this act shall commence and be in force from and after the 15th day of August next." (First Cong., 1st sess., ch. 3, 1789; Stat. L., pp. 27-28.)

It has seemed to me—evidently it was the experience of our ancestors—that coincident with the discriminating duty there should also be a discriminating tonnage tax, so that not only imports but exports might be provided for.

Great Britain, having established herself in our ocean commerce, commanded the support of those in this country who were attached to her interest, and was aided as well by those who believed that the principles of free trade had been violated by this statute. Issue was joined between those who desired the repeal of the statute and those who, doubting whether a sufficient discrimination had been made, wished for an increased discrimination.

WASHINGTON AND JEFFERSON.

President Washington, in his message to Congress on December 8, 1790, said:

"We should not overlook the tendency of a war, and even of preparation for a war, among the nations most concerned in active commerce with this country to abridge the means and thereby at least to enhance the price of transporting its valuable productions to their proper markets. I recommend it to your serious reflection how far and in what mode—"

This is no new question—

"it may be expedient to guard against embarrassments from these contingencies by such encouragements to our own navigation as will render our commerce and agriculture less dependent on foreign bottoms, which may fail us in the very moments most interesting to both of these great objects. Our fisheries and the transportation of our produce offer us abundant means for guarding ourselves from this evil." (President Washington, in his message of December 8, 1790.)

In 1793, while acting as Secretary of War, Thomas Jefferson made a report to Congress from which the following excerpt is taken:

"Were the ocean, which is the common property of all, open to the industry of all, so that every person and vessel should be free to take employment wherever it could be found, the United States would certainly not set the example of appropriating to themselves exclusively any portion of the common stock of occupation. They would rely on the enterprise and activity of their citizens for a due participation in the benefits of the seagoing business, and for keeping the marine class of citizens equal to their object. But if particular nations grasp at undue shares, and more especially if they seize on the means of the United States to convert them into aliment for their own strength, and withdraw them entirely from the support of those to whom they belong, defensive and protecting measures become nec-

essary on the part of the nation whose marine resources are thus invaded; or it will be disarmed of its defense, its productions will lie at the mercy of the nation which has possessed itself exclusively of the means of carrying them, and its politics may be influenced by those who command its commerce. The carriage of its own commodities, if once established in another channel, can not be resumed in the moment we may desire. If we lose the seamen and artists whom it now occupies, we lose the present means of marine defense, and time will be requisite to raise up others, when disgrace or losses shall bring to our feelings the error of having abandoned them."

Notwithstanding opposition, our policy, thus strongly fortified, remained unchanged.

The effect of these laws upon American shipping was extremely favorable. In 1811 90 per cent of our imports and 86 per cent of our exports were carried in American vessels. Then ensued the war with England, but even during that war American vessels carried an average of 71 per cent of our imports and 65 per cent of our exports.

THE ACT OF 1815.

On March 3, 1815, Congress passed an act modifying the system of discriminating duties, but retaining its practical advantages.

The text of the act is as follows:

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That so much of the several acts imposing duties on the tonnage of ships and vessels and on goods, wares, and merchandise imported into the United States as imposes a discriminating duty of tonnage between foreign vessels and vessels of the United States be, and the same are hereby, repealed, so far as the same respects the produce or manufacture of the nation to which such foreign ships or vessels may belong. Such repeal to take effect in favour of any foreign nation whenever the President of the United States shall be satisfied that the discriminating or countervailing duties of such foreign nation, so far as they operate to the disadvantage of the United States, have been abolished. (Approved Mar. 3, 1815, 13th Cong., 3d sess., ch. 77; 3 Stat. L., p. 224.)

It will be noted that so far as vessels were laden with the produce or manufacture of countries other than their own the former discriminations applied in full force. The act permitted access to our ports by foreign vessels upon precisely the same terms as our own vessels were admitted when laden with the produce or manufacture of the nation to which they belonged, but preserved the discrimination against the ships of carrier nations.

The growth of a great carrier nation necessarily developing immense sea power can not but result in giving such a nation a disproportionate influence among the nations of the earth.

The act of 1815 gave notice to the nations that the United States intended to upbuild its own shipping, and while it had no ambition to become a world's carrier, it would not suffer its trade to contribute to the success of such a carrier.

The statute of 1815 typifies the spirit of the navigation laws under which our shipping increased in strength and importance, notwithstanding the constant efforts of Great Britain to arrest its progress.

The war of 1812 had only temporarily affected this growth. A long series of counter regulations by England, extending between 1789 and 1824 had proven fruitless.

Then England, by diplomacy, gained all that she had lost by war or legislation. A mutual abandonment of our navigation laws was proposed by her, and in October, 1830, was accepted by the United States by convention.

A COMPLETE SUCCESS.

Promoted by wise legislation, our system had proven a complete success. In 1827 we carried 94 per cent of our imports and 87 per cent of our exports. At this period, with threatened reciprocity, the decadence of our merchant marine began, and the retrogression has continued without interruption. To-day we carry only about 8 per cent of our aggregate imports and exports.

The United States, in 1827, possessed a shipping almost sufficient for its own purpose. Great Britain was a world carrier, with a shipping many times sufficient for her own trade. She might well propose the mutual abrogation of our respective navigation laws, but it was a mistake for a nation, relatively weak upon the sea, to suppose that reciprocal legislation could mean actual reciprocity. For ten years prior to 1830 the average British arrivals in our ports had been about 76,000 tons. In the year following the reciprocity British arrivals amounted to 144,000 tons, and during the next ten years the average of British arrivals was over 210,000 tons annually—an average British increase in our own ports of over 300 per cent. Our increase in the ports of Great Britain amounted only to 40 per cent.

Reciprocity had not proven to be reciprocal. Other causes undoubtedly cooperated in our undoing, but these causes would have had little or no effect had our system of discrimination been continued. The transition between sail and steam was of this character. The United States could build wooden sailing ships cheaper than England. Hulls of ships were not built of iron until after 1840, but the nation which had the cheapest metal and numerous workshops had an important advantage in the production of marine machinery. Parliament recognized that the continued maritime ascendancy of Great Britain lay in the immediate adoption of steam power. Under her convention with America she could not give the encouragement to her newly projected steam lines that had been afforded by the navigation act, so she resorted to the subsidy system, and every one of her early steam lines was a State-aided enterprise. The Cunard Company, formed in 1839, was born of a promised annual subsidy of \$425,000, which was afterwards increased to \$850,000. Similar State aids secured immediate response. England's steam fleet grew rapidly.

Even such measures of reciprocity as we had purchased with the abolition of our own navigation system of proven worth was rendered nugatory by England's timely adoption of her new subsidy system.

The United States regarded this departure with amazed disapproval. It required an object lesson of many years before our legislators were persuaded that the United States was justified in imitation as a matter of self-defense.

THE FIRST MAIL SUBSIDY.

Now, as to the politics of this question. In 1844 President Tyler, a Democratic President, and in 1845 President Polk, another Democratic President, advocated a subsidy to secure transoceanic steam service. Under the championship of Senators King, of Georgia (I need not mention his politics), and Rusk, of Texas (nor his), an act was accordingly passed, and subsidy was met with subsidy.

It was under that Administration that the first subsidy ever given in America was granted.

Senator MALLORY. It was confined to a postal subsidy.

Mr. BICKFORD. Yes, sir; and it seems to me that every subsidy should be confined either to a postal or an admiralty subvention, not, it seems to me, that our conditions are such as that there were no other way of giving it a subsidy would not be justified, for I believe it would be, but I believe there is a better way than the direct subsidy which has often heretofore been urged.

Under these laws the growth of our steam tonnage was rapid, and although Great Britain had been a full decade ahead of us in the subsidizing of steamship lines, in 1851 our ocean steam tonnage amounted to 62,000 tons as compared with the 65,000 tons of England. This equality was maintained until 1856. At this time, when party feeling was running high and sectional exasperation was great, subsidies were abandoned, with the most disastrous consequences to our shipping.

The cruisers of the Confederate States only hastened a result which unwise legislation, or the failure to legislate, had already assured.

After the war America again attempted to reenter the field, but it was then, as it has since remained, in the occupancy of foreign shipping.

QUITTING THE OCEAN.

After a futile effort to reestablish himself upon the seas, discouraged by the apathy of Congress, the American sailor turned his face westward, and to-day his sons know the ocean only through the memories of a sire who recalls with sadness the halcyon days of American shipping.

Engrossed in the development of agriculture, mining, or manufacturing, the American people have for forty years devoted but little thought to the sea.

It is true Congress granted a restricted postal subvention in 1891, but a very large part of our postal appropriations are paid to foreign ships.

Aside from this no provision has been made for our shipping. Our conventions of reciprocity have remained changeless in our greatly changed conditions.

Since the inauguration of the system Great Britain has spent in subsidies over \$250,000,000.

ENGLAND'S LIBERALITY.

England now devotes about 5 millions of dollars in annual subsidies to the maintenance of her status upon the sea. The importance

which she attaches to her maritime ascendancy is nowhere more manifest than in her recent contract with the Cunard Company, under which the Government advanced 13 millions of dollars for the construction of two 24-knot vessels for that company, and grants it an additional subsidy of \$600,000 a year.

With the exception of a subsidy of \$200,000 a year to encourage the fruit trade of the West Indies, firmly intrenched in the world's carriage, England ostensibly grants no subsidy for mere freight carriage. Her postal and admiralty subventions are, however, so distributed as to encourage the trade by which the slower freighters profit.

Germany pays a subsidy of over \$2,000,000 annually, and in addition grants indirect bounty in the form of exemption from payment of customs duty in certain cases and in preferential railway rates upon the German State Railway throughout the Empire, a state of affairs not possible with us because with us the railroads are privately owned.

Senator MALLORY. Still our railroads do grant better rates for exportation than they do for consumption on the seaboard.

Mr. BICKFORD. That is undoubtedly true, sir; and were that a thing which could be compelled by the National Government, then it would be a form of aid which, cooperating with other aids, would be extremely beneficial to the maritime interests of this nation.

STATE-AIDED FOREIGN SHIPPING.

France grants a subsidy of ten millions of dollars a year, including postal subventions, bounties for construction and shipbuilding and for navigation.

Japan also grants shipbuilding subventions or subsidies.

Other nations bring the total of subsidies up to more than 25 millions of dollars a year.

These State aids have kept our shipping from the seas as surely as did England's navigation act; they have blockaded the ports of the world against the American ship.

If hostile cannon preyed upon our commerce, our cannon would answer. When the gentler, but no less effective, means of legislation is employed against us, is there no answer to be made?

That a nation should possess a shipping sufficient for its own needs is a principle which has been repeatedly declared by our own political philosophers to be one of economic necessity. The expressions of Virginians have been especially emphatic.

Washington's message of December 8, 1790, to this effect has already been quoted.

VIEWS OF EARLY STATESMEN.

Mr. Nicholas, of Virginia, in a debate in the House of Representatives in 1794, said: "The interest of the whole community, not only those who are carriers, but those who also furnish the object of carriage, positively demands a domestic marine, equal to its whole business; and that, even if it is to exist under rates higher than those of foreign navigation, it is to be preferred."

In 1793 Jefferson, referring to navigation, said: "Its value as a branch of industry is enhanced by the dependence of so many other

branches on it. In times of general peace it multiplies competitors for employment in transportation, and so keeps that at its proper level, and in time of war—that is to say, when those nations who may be our principal carriers shall be at war with each other—if we have not within ourselves the means of transportation, our produce must be exported in belligerent vessels at the increased expense of war freights and insurance, and the articles which will not bear that must perish on our hands.”

Mr. Madison, in 1794, said: “To allow trade to regulate itself is not, therefore, to be admitted as a maxim universally sound. Our own experience has taught us that, in certain cases, it is the same thing with allowing one nation to regulate it for another. * * * A small burden only in foreign ports on American vessels, and a perfect equality of foreign vessels with our own in our own ports, would gradually banish the latter altogether.”

In 1809 Mr. Jefferson wrote: “It is essentially interesting for us to have shipping and seamen enough to carry our surplus produce to market; but beyond that I do not think we are bound to give it encouragement by drawbacks or other premiums.”

Benjamin Franklin defines fair commerce as follows: “Fair commerce is where equal value is exchanged for equal, the expense of transportation included. Thus, if it cost A in England as much labor and charge to raise a bushel of wheat as it cost B in France to produce 4 gallons of wine, then are 4 gallons of wine the fair exchange for a bushel of wheat, A and B meeting at half distance with their commodities to make the exchange.” (American Navigation, Bates, p. 53.)

It was to enforce this principle and to secure to the United States the benefit of its operation that our early navigation acts were passed. As a consequence, American shipping vastly increased, and with it increased the wealth of the nation. Resultant upon the discarding of this principle, American shipping has fallen below the point it occupied in 1789, and the wealth of this nation has been vastly reduced.

OUR DELUSIVE BALANCE.

Now, to-day we have heard about the balance of trade in favor of America. During the last twenty years the foreign trade of this country has amounted to over 32 billions of dollars; for the freight and carriage of this, 3,000 millions of dollars have been paid; of this immense sum only 10 per cent has been paid to American ships. Between 1862 and 1896, the last figures I could get, the total balance of trade in favor of the United States amounted to \$1,203,945,992. But this balance is deceitful. During this period the sum paid to foreign ships for carriage amounted to \$2,878,518,913; considering this, instead of a balance favorable to the United States, there results an unfavorable balance of \$1,674,572,921 in this period of national growth and more favorable trade balances. This may be called the balance of commerce, which includes transportation as well as trade, and it is with this balance of commerce that England makes up her enormous deficit of trade.

We have forsaken these principles of tried value and we have paid the penalty.

But the consequences to the United States are not confined to the

mere loss of wealth incident upon this course of polite prodigality. The growth of the navy is lessened and its power diminished.

Adam Smith well observes that "Defense is to be preferred to opulence."

Jefferson says: "Every rational citizen must wish to see an effective instrument of coercion and should fear to see it on any other element but the water. A naval force can never endanger our liberties nor occasion bloodshed; a land force would do both." (Letter to James Monroe, Paris, August 11, 1786. Writings of Thomas Jefferson, vol. 4, p. 265. Paul Leicester Ford.)

The American people have determined that the United States shall possess such a navy. Whether expressed or unexpressed, each representative of the people of the United States is under the charge to secure the increase of the navy.

MUST HAVE A RESERVE.

History affords no instance of real maritime power in which the navy was not accompanied by the reserve of a great peace shipping.

The intimate relationship between navigation and national defense has been often recognized by our own statesmen.

In 1793 Jefferson says: "But it is as a source of defense that our navigation will admit neither neglect nor forbearance. The position and circumstances of the United States leave them nothing to fear on their land board and nothing to desire beyond their present rights. But on their seaboard they are open to injury, and they have there, too, a commerce which must be protected. This can only be done by possessing a respectable body of citizen seamen and of artists and establishments in readiness for shipbuilding."

In 1818, in a debate in the Senate of the United States, James Barbour, United States Senator from Virginia, said: "The last war gave proof that its growth (the Navy) was indissolubly connected as well with our defense as glory. All the theories, all the gloomy prophesies of its adversaries yielded to its victories, and while disaster or disgrace overwhelmed your armies, glory perched on your naval flag and filled the earth with its renown. The murmurs of hostility were instantly changed for hosannas of applause, and all united in advocating an increase.

AN ACTIVE COMMERCIAL MARINE.

"Sir, how is that policy to be realized? Not by appropriating millions to the building of ships, but by an active commercial marine. To what do you owe your success in the last war—to the size, the structure, or the superior number of your vessels? No, sir; under Providence, to the hardy, brave, and experienced sailors, voluntarily entering your service. From whence are you to draw your future crews if you suffer other nations to monopolize that share of maritime transportation to which you are justly entitled? Ships without sailors are built only for enemies. Sailors without navigation can not exist. Guard, then, with ceaseless vigilance this nursery of your safety and your fame, or retrace your policy, sell your ships before they are taken to the highest bidder, recall the millions which have been appropriated to the increase of the Navy, but not yet expended,

abandon the ocean, where, without a navy, you can appear only to be insulted and oppressed. Is there a voice out of Congress in favor of this later course? * * * To the Navy I look, sir, as a great bond of union. You may divide territories, you may claim a sectional share in victories by land, but a naval victory is from its nature indivisible. We may be told of Bunker Hill, or Bennington, or Saratoga, on the one hand; on the other, Cowpens, or Guilford, or New York, or New Orleans, but a naval victory, broad as the element on which it is achieved, diffuses equal joy and enthusiasm throughout the boundless territories of the Republic." (*American Navigation*, Bates, pp. 236, 237.)

In 1822, in a review of our policy as to commercial intercourse, Mr. Thomas Newton, Representative in Congress from Virginia and chairman of the Committee on Commerce, said: "This war opened an era which raised and gave reputation to the arm destined to protect its rights; and that arm will be able to protect its rights if the navigation of the United States, the nursery of its strength and efficiency, shall not be sacrificed by a vacillating policy."

CAPTAIN MAHAN'S WORDS.

A naval writer of much distinction holds similar views: "When the day comes that shipping again pays, when the three sea frontiers find that they are not only militarily weak, but poorer for lack of national shipping, their united efforts may avail to lay again the foundation of our sea power. Till then, those who follow the limitations which lack of sea power placed upon the career of France may mourn that their own country is being led, by a like redundancy of home wealth, into the same neglect of that great instrument." (*The Influence of Sea Power Upon History*, Mahan, p. 39.)

"Though the treatment of the subject has been somewhat discursive, it may be admitted that a great population following callings related to the sea is now, as formerly, a great element of sea power; that the United States is deficient in that element and that its foundations can be laid only in a large commerce under her own flag." (*The Influence of Sea Power Upon History*, Mahan, p. 49.)

That suitable laws may be framed to reestablish the American merchant marine the conditions of competition must be understood. England is the competitor which must be reckoned with by any nation desiring to extend its sea commerce. Her system is as complete as the best thought of her statesmen and the jealous interest of her people can make it.

FREE SHIPS MEAN FAILURE.

I do not refer to free ships, gentlemen, for in the last analysis it means that the American with his purchased ship competes with it as against the new ship bought with the purchase money by the previous foreign owner of it. It is as if two trolley companies were in competition. The one which had previously been in existence had a large equipment of rolling stock, which had fallen into desuetude—into decay. It had said to the other company, "Now, let us be reasonable about this thing. We can let you have rolling stock cheaper than you can get it elsewhere. You buy our rolling stock." The new

company, in a spirit of complaisance, buys the rolling stock. What happens? The new company goes ahead with the rolling stock of the old company, while the old company spends the money so raised in the purchase of new rolling stock. Which company will get the business?

The early laws of discriminating duties framed by Madison, and championed by Jefferson, were for the express purpose of meeting the navigation act.

To successfully compete for the carriage even of our own sea commerce, the laws for the revival of our merchant marine must be devised to meet the present English policy. We must possess instrumentalities not as extensive as those required by a world carrier, but as complete.

England possesses swift and powerful vessels whereby easy and rapid communication is afforded to all parts of the earth. While they are important carriers, the proportion of total carriage by these vessels is not great.

It is a commercial maxim that trade follows lines of easy communication—a maxim which derives additional weight from England's experience. The slower freight ship always travels in the wake of the fast liner.

Germany and France, the Netherlands, Italy, Japan, all recognize that much of England's maritime advantage is due to the possession of such ships, and those nations have made their entries in the race for transoceanic trade.

VALUE OF MAIL LINERS.

The expense of the operation of these vessels is very great. Every knot of speed is gained at constantly increasing and disproportionate cost in power, construction, and in operation. The revenues derived from commerce will not maintain such vessels. Their importance to commerce requires their maintenance; therefore, England maintains them, as does France and Germany, by a payment of postal and admiralty subsidies.

It is very manifest that a direct benefit is gained by fast-mail transportation. The greater the speed, the greater the benefit. Opinions may differ as to the amount of advantage gained by the rapid forwarding of mails, but all will agree that there is advantage.

Admiralty subventions are justified on the ground that such vessels constitute a very important addition to the naval strength of a nation. They are so constructed as to be readily transformed into unarmored cruisers; their great speed renders them capable of becoming commerce destroyers of no mean value, while their availability for the transportation of troops is apparent.

The benefits derived from these vessels as mail carriers and as auxiliary cruisers are direct. It is just that such benefits should be paid for, and it is reasonable that the payment should be paid direct. Essentially such appropriations would be postal and naval in character.

While, indeed, such provisions are necessary to the existence of a competing shipping, this consideration does not change the character of the payments. All sea commerce is dependent upon mail communication and naval protection.

No reason is perceived why the United States should not make pro-

visions for fast ships. Indeed, it must do so, unless it is content to resign its ocean carriage permanently to other nations and continue in a position of economic and military weakness.

A VAST SUBSIDY TO FOREIGN SHIPPING.

The United States now pay a subsidy vastly greater than that paid by any other nation. In the form of freights it devotes \$200,000,000 annual subsidy to encourage foreign shipping. The expenditure of this stupendous sum, extravagantly subsidizing foreign shipping, continues with each year of inaction. Some affirmative American measure is necessary to prevent this diversion of our national wealth to foreign treasuries. We need expect no political miracle by which neglected weakness may be transmuted into strength. "Eternal vigilance is the price of safety."

The propriety of the adoption by a republican government of a subsidy system has been doubted. The right of retaliation is inherent in all governments. National defense is the highest obligation of any form of government.

The economic advantage of subsidy is questioned. Even a positive subsidy to ships of every class of American ocean shipping would involve an expenditure much less than the present annual American subsidy to foreign shipping.

The Constitution was not adopted to devote this nation to weakness, but to clothe it in strength.

Jefferson says:

"The materials for maintaining our due share of navigation are ours in abundance. And, as to the mode of using them, we have only to adopt the principles of those who thus put us on the defensive, or others equivalent and better fitted to our circumstances."

GOOD PRECEDENTS.

Such a subsidy involves merely a recurrence to the policy of Tyler and Polk—it is merely an extension of our present postal subsidy law of 1891.

Besides the naval reserve of ships which England secures from her merchant fleets, she provides also, and again by subsidy or direct appropriation, for a merchant reserve of seamen. Here, again, the United States may imitate with profit.

It is true the payment is direct, but the benefits are also direct, and, being direct, should be directly paid for.

Our own naval history is luminous with the deeds of merchant seamen whom war has attracted to the Navy. Every naval combat in either the Revolutionary war or the war of 1812 won laurels for the American merchant seamen. Nor are modern instances lacking. No praise should be withheld from Dewey and his captains at Manila Bay, nor from Schley and his aids at Santiago, but the plucky little *Gloucester*, the *St. Louis*, the *St. Paul*, the *Yosemite*, the *Yankee*, and the *Divie* made a gallant appeal for a naval reserve.

As in the case of postal and admiralty subventions to shipping, national defense justifies the expenditure for a naval reserve. Here also the merchant marine profits by the expenditure, but in return it educates seamen. It establishes a sea militia. Appropriations to

secure these benefits are justified upon precisely the same principles as are national appropriations for a land militia.

In addition to these advantages, which are in a sense auxiliary, England possesses a vast fleet of freight ships which carry her flag into every port in the world. This is the very backbone of her maritime strength.

The rehabilitated merchant marine of the United States must possess such a number of these vessels as shall suffice for the demands of its ocean trade.

In several instances England grants direct aids or subsidies to freight lines, but for the most part no direct aids are granted to freight ships. They, however, enjoy indirect advantages of various kinds

INDIRECT ADVANTAGES OF ENGLAND.

I might mention among these the advantage which grows out of the combination of the English wharf owners, the British Lloyds, which, in its patriotic attachment to English interest, deserves similar action upon the part of our own allied capital in this country.

The patriotic cooperation of the English shipping interest and the extended and complete English insurance system which so largely affects shipping in general, gives to the British ship certain very substantial advantages. But by far the greatest element in the supremacy of her shipping is due to England's established position as a world's carrier. Commerce has become habituated to the employment of English ships.

To overcome these advantages France, Germany, Italy, the Netherlands, Russia, and, in the East Japan and other nations have resorted to various measures, including bounties on construction. All these countries have provided distinct subsidies for special lines. Besides this, Germany has provided preferential railway rates—a course not possible by statute in the United States. Many of these countries have provided an additional direct subsidy to freight ships on a mileage basis. The experience of France in this respect may be taken as typical. While the French merchant marine has increased very largely in consequence of her laws in aid of ocean-borne trade, it is believed that the same results could be secured at less expenditure, and the French now contemplate a modification of their system, by which the aid may be more closely confined to the vessels which carry as distinguished from those which merely navigate.

On the other hand, Japan's merchant marine shows immense growth under its system.

The universal experience of the nation granting subsidy is that it has at least served in every instance to preserve that nation's shipping from decay and the consequent reduction of national wealth.

American freight ships must be provided for.

FREIGHT SHIPS INDISPENSABLE.

For many years there has been but little merchant-ship construction, resulting in an increase of cost, which can only be reduced when a certain market has produced the plants and methods required for cheap construction. Land employment is more remunerative in America, therefore a higher scale of wage must be paid the Amer-

ican sailor than is paid the sailors of countries where labor is less fortunate.

Both the cost of construction and operation are greater in the United States than in countries where a wiser shipping policy has been persisted in.

But the freight ship, though a potent factor in the wealth and security of a nation, produces its advantages indirectly. A fixed direct measure of value, such as mileage subsidy, should therefore not be resorted to, certainly not until proportional and indirect methods of aid prove unsuccessful.

In adopting an American policy for the freight ship the United States has no need to follow the example of any other nation. While a system of proportionate subsidy might undoubtedly be devised for the encouragement of these vessels, it is doubtful whether any system would approach in simplicity and certainty of operation our time-tried policy of discriminating duties—the policy of Washington, Jefferson, and Madison, which automatically applies its benefits to the particular vessel which by actual carriage has earned the advantage.

It is true that the present conventions of reciprocity would prevent a recurrence to this policy. These conventions were designed to secure for the United States an equality upon the sea. No sooner were they sealed than the inequality of their operation was manifest, an inequality which has been accentuated by the subsidy policy of foreign countries. The conventions, while theoretically reciprocal, were practically suicidal. By their terms they are terminable upon notice. In the several instances in which treaties were made these are terminable by law.

Bad policies should not be perpetuated, but abandoned.

FOREIGN OPPOSITION.

The interested antagonism of foreign shipping to our laws of 1789 will again manifest itself whenever any change in the American shipping policy is imminent. So soon as Americans shall cease the war of doctrines, which has devoted our shipping to decay, then from the seaboard and from the interior new voices will be raised either in benevolent advice or pained remonstrance. Trace the life of the speaker and very often it will be found that his attachment to the interests of another land and the complacency with which he views our subservient commerce is to be ascribed to either his birth or employment.

In this wise an American system may be formed.

It is undoubtedly true that both the direct and the indirect subsidy systems possess merit. Under the conditions of ocean transportation which now prevail, neither system will secure the best results. Each has a field of usefulness. The greatest advantage will be gained when both operate in intelligent combination.

When a coherent shipping policy is adopted, as sooner or later it will be, it will attract much idle capital to useful employment. Then, too, we may expect a return to America of the expatriated wealth now invested in foreign shipping. A renewed industry will gladden the land; and soon, wherever the seas will bear a ship, there a ship will bear the flag of the United States. [Applause.]

Among the many works which the writer has had occasion to con-

sult and to freely adopt or quote in the preparation of the above paper, the very exhaustive work of Capt. Wm. W. Bates on "American Navigation" is preeminent.

The speaker, while not always agreeing with the conclusions of that author, has availed himself fully of the vast fund of information contained in his admirable book, and now gratefully acknowledges the assistance thus derived.

Gentlemen, I thank you and I apologize to you for consuming so much of your time.

Senator MALLORY. Before you retire, there is one point to which I wish to call your attention. It has been urged against the discriminating-duty plan in the indirect trade that foreign nations, whose navigation laws are more latitudinous than ours, would very readily, whenever it suited their convenience or interest, transfer their ships to the flags of those nations which traded with us most, and thereby cut us out of the benefit of the discriminating duties, inasmuch as they would carry the flag of the nation from whom we derived the products that were shipped to this country.

Mr. BICKFORD. Yes, sir.

Senator MALLORY. Have you given that matter any consideration?

Mr. BICKFORD. I have not, but during the war between England and France I know there was a similar transfer of apparent ownership.

Senator MALLORY. We had a more recent illustration in the case of Spain. In our war with her she transferred her ships to other nations very quickly.

A CHANGE OF FLAG.

Mr. BICKFORD. Yes, sir.

Senator MALLORY. The point is that if we allow foreign vessels to import goods into the United States from their own country without any discrimination whatever, such nations as Italy, Sweden and Norway, and even Great Britain, would very readily transfer their vessels to other nations which deal most with us.

Mr. BICKFORD. What I have proposed is a return to the system of 1789 as opposed to the system of 1815. That such a thing could be done is very, very possible. The only justification we have in believing that it will not be done is that there was the same incentive to do it in the period between 1789 and 1826, and though it might have been done within that period, we find by an examination of the statistics of our own growth that either it was not done or if done it was not done to so great an extent as to prevent our own increase.

Senator MALLORY. I do not think it was done at all during that period, but it looks to me as if it was possible it would be done now in the event of any sharp competition.

Mr. BICKFORD. It may be.

Senator MALLORY. I do not mean to say that I think so, but it looks to me as if it were possible.

Mr. BICKFORD. If it were to be done we would be forced in self-defense into the adoption of a more expensive, less automatic, less easily measured system, which has been resorted to by other countries—namely, direct subsidies. That in that event would be the only

answer. But recurring to our own experience, which is as of a time when competition was indeed as keen, but when the—

—Ways that are dark

And * * * tricks that are vain—

were not perhaps as rife as they are at this day, we have the right to expect the advantage that we gained under our old régime. It seems to me, sir, as I said last night, that this is an American question. No commission, it seems to me, that has ever been appointed by the American Government has had to deal with so strictly a nonpartisan question as has this Commission; and attending its deliberations will be the good wishes, the prayers of every American citizen whose habit of thought has been such as to call his attention to the extreme gravity of this most interesting question. [Applause.]

AUTHORITATIVE VIEWS.

I wish to ask permission of the Commission to file with them a series of excerpts, containing absolutely no matter of argument, from the writings of our statesmen of the past and in the present years respecting this particular matter. It embodies excerpts from the writings of Washington, of Jefferson, of Madison, down, indeed, to the present day, and I have thought it just to present to the Commission some excerpts from the writings of Captain Mahan, whose recent work, *The Influence of Sea Power upon History*, is one that I think may be regarded with some interest by those who have addressed their minds to this subject.

Senator MARTIN. That will be very interesting, and it will be printed as a part of our proceedings.

The matter referred to is as follows:

A healthy merchant marine is important to the due growth of nations.

It is an indispensable factor of sea power.

These principles were recognized in the early history of this country. Profiting by the teachings of Jefferson and Madison, our merchant marine grew to greatness—forsaking these principles, it has fallen to decay.

In 1826 98 per cent of our sea commerce was carried in American vessels. In 1904 only about 9 per cent of our sea commerce will be so carried.

We pay annually \$200,000,000 to foreign freight carriers. In the face of this reckless dissipation of national wealth continued indifference is criminal.

It is time to return to the faith of our fathers.

This pamphlet contains excerpts from the works, the speeches, and the debates of statesmen whose names are recalled with reverence and gratitude, not only by the Democratic party but by the American people.

The collection has been printed in the hope that it may serve to arouse new interest in the American merchant marine.

“We ought to begin a naval power, if we mean to carry on our own commerce.” (Letter to James Monroe, Nov. 11, 1784, *Writings of Thomas Jefferson*, vol. 4, p. 10. Paul Leicester Ford.)

Our early statesmen believed in "fair commerce," which was thus stated by Benjamin Franklin:

"Fair commerce is where equal values are exchanged for equal, the expense of transportation included. Thus if it cost A in England as much labor and charge to raise a bushel of wheat as it costs B in France to produce 4 gallons of wine, then are 4 gallons of wine the fair exchange for a bushel of wheat, A and B meeting at half distance with their commodities to make the exchange. The advantage of this fair commerce is, that each party increases the number of his enjoyments, having, instead of wheat alone, the use of both wheat and wine." (American Navigation, p. 55. Bates.)

WORDS OF JEFFERSON.

"If anything will open their eyes it will be an application to the avarice of the merchants, who are the very people who have opposed the treaty first meditated, and who have excited the spirit of hostility at present prevailing against us. Deaf to every principle of common sense, insensible to the feelings of man, they firmly believe they shall be permitted by us to keep all the carrying trade, and that we shall attempt no act of retaliation because they are pleased to think it to our interest not to do so." (Letter to James Monroe, Nov. 11, 1784, Paris, Writings of Thomas Jefferson, vol. 4, p. 7. Paul Leicester Ford.)

"We have two plans to pursue. The one to carry nothing for ourselves, and thereby render ourselves invulnerable to the European States; the other (which our country will be for) is to carry as much as possible. But this will require a protecting force on the sea. Otherwise the smallest power in Europe, every one of which possesses a single ship of the line, may dictate to us, and enforce their demands by captures in our commerce." (Letter to James Monroe, February, 1785, Writings of Thomas Jefferson, vol. 4, p. 32. Paul Leicester Ford.)

"These insults must be resented, even if we had no feelings, yet to prevent their eternal repetition, or, in other words, our commerce on the ocean and in other countries must be paid for by frequent war. The justest dispositions possible in ourselves will not secure us against it. It would be necessary that all other nations were just also. Justice indeed on our part will save us from those wars which would have been produced by a contrary disposition. But to prevent those produced by the wrongs of other nations? By putting ourselves in a condition to punish them. Weakness provokes insult and injury, while a condition to punish it often prevents it. This reasoning leads to the necessity of some naval force, that being the only weapon with which we can reach an enemy. I think it to our interest to punish the first insult, because an insult unpunished is the parent of many others. We are not at this moment in a condition to do it, but we should put ourselves into it as soon as possible. If a war with England should take place, it seems that the first thing necessary would be a resolution to abandon the carrying trade because we can not protect it. Foreign nations must in that case be invited to bring us what we want and to take our productions in their own bottoms. This alone could prevent the loss of those productions to us and the acquisition of them to our enemy.

"Our seamen might be employed in depredations on their trade. But how dreadfully we shall suffer on our coasts if we have no force on the water, former experience has taught us. Indeed, I look forward with horror to the very possible case of war with and European power, and think there is no protection against them but from the possession of some force on the sea. Our vicinity to their West India possessions and to the fisheries is a bridle which a small naval force on our part would hold in the mouths of the most powerful of these countries. I hope our land office will rid us of our debts, and that our first attention then will be to the beginning, a naval force of some sort. This alone can countenance our people as carriers on the water, and I suppose them to be determined to continue such." (Letter to John Jay, Paris, August 23, 1785, Writings of Thomas Jefferson, vol. 4, pp. 89-90, Paul Leicester Ford.)

AN EQUALITY OF RIGHTS.

"Our people are decided in the opinion that it is necessary for us to take a share in the occupation of the ocean, and their established habits induce them to require that the sea be kept open to them, and that that line of policy be pursued which will render the use of that element as great as possible to them. I think it a duty in those intrusted with the administration of their affairs to conform themselves to the decided choice of their constituents, and that therefore we should in every instance preserve an equality of right to them in the transportation of commodities, in the right of fishing, and in the other uses of the sea." (Letter to John Jay, Paris, August 23, 1785, Writings of Thomas Jefferson, vol. 4, pp. 88-89. Paul Leicester Ford.)

"They attempt without disguise to possess themselves of the carriage of our produce and to prohibit our own vessels from participating of it. This has raised a general indignation in America. The States see, however, that their constitutions have provided no means of counteracting it. They are, therefore, beginning to invest Congress with the absolute power of regulating their commerce, only reserving all revenue arising from it to the State in which it is levied. This will consolidate our Federal building very much, and for this we shall be indebted to British." (Letter to Hogendorp, Paris, October 13, 1785, Writings of Thomas Jefferson, vol. 4, p. 104. Paul Leicester Ford.)

"Every rational citizen must wish to see an effective instrument of coercion, and should fear to see it on any other element but the water. A naval force can never endanger our liberties nor occasion bloodshed. A land force would do both." (Letter to James Monroe, Paris, August 11, 1786, Writings of Thomas Jefferson, vol. 4, p. 265. Paul Leicester Ford.)

"For though we may say with confidence that the worst of the American constitutions is better than the best which ever existed before in any other country, and that they are wonderfully perfect for a first essay, yet every human essay must have defects. It will remain, therefore, to those now coming on the stage of public affairs to perfect what has been so well begun by those going off it." (Letter to Thomas Mann Randolph, Paris, July 6, 1787, Writings of Thomas Jefferson, vol. 4, p. 403. Paul Leicester Ford.)

A TRIBUTE TO PAUL JONES.

"Paul Jones is invited into the Empress's service with the rank of rear-admiral, and to have a separate command. I wish it corresponded with the views of Congress to give him that rank from the taking of the *Serapis*. I look to this officer as our great future dependence on the sea, where alone we should ever think of having a force. He is young enough to see the day when we shall be more populous than the whole British dominions and able to fight them ship to ship. We should procure him then every possible opportunity of acquiring experience." (Letter to Edward Carrington, Paris, May 27, 1788, Writings of Thomas Jefferson, vol. 5, p. 22. Paul Leicester Ford.)

"In the meantime I have laid my shoulder to the opening of the markets of this country to our produce, and rendering its transportation a nursery for our seamen. A maritime force is the only one by which we can act on Europe. Our navigation law (if it be wise to have any) should be the reverse of that of England. Instead of confining importations to home bottoms of those of the producing nations, I think we should confine exportations to home bottoms or to those of nations having treaties with us. Our exportations are heavy, and would nourish a great force of our own, or be a tempting price to the nation to whom we should offer a participation of it in exchange for free access to all their possessions." (Letter to George Washington, Paris, Dec. 4, 1788, Writings of Thomas Jefferson, vol. 5, p. 58. Paul Leicester Ford.)

MADISON'S OPINION.

"British policy toward America: Let us review the policy of Great Britain toward us. Has she ever shown any disposition to enter into reciprocal regulations? Has she not, by a temporizing policy, plainly declared that until we are able and willing to do justice to ourselves she will shut us out from her ports and make us tributary to her? Have we not seen her taking one legislative step after another to destroy our commerce? Has not her legislature given discretionary power to the executive, that so she might be ever on the watch and ready to seize every advantage the weakness of our situation might expose? Have we not reason to believe that she will continue a policy void of regard to us, whilst she continue to gather into her lap the benefits we feebly endeavor to withhold, and for which she ought rather to court us by an open and a liberal participation of the commerce we desire? Will she not, if she finds us undecisive in countenancing her machinations, continue to consult her own interests as heretofore? If we remain in a state of apathy, we do not fulfill the object of our appointment; most of the States in the Union have, in some shape or other, shown symptoms of disapprobation of British policy.

"Those States have now relinquished the power of continuing their systems, but under an impression that a more efficient government would effectually support their views. If we are timid and inactive, we disappoint the just expectations of our constituents, and I venture to say we disappoint the very nation against whom the measure is principally directed." (Speech of Mr. Madison, 1789, American Navigation, pp. 52-53. Bates.)

"I admit," he continued, "that laying 50 cents on foreign vessels, and but 6 cents on our own, is a regulation by which the owners of American shipping will put a considerable part of the difference in their pockets. This, sir, I consider as a sacrifice of interest to policy; the sacrifice is but small, but I would not contend for it if we did not stand in need of maritime improvement. Were it not for the necessity we are under of having some naval strength I would be an advocate for throwing wide open the doors of our commerce to the world and making no discrimination in favor of our own citizens. But we have maritime dangers to guard against, and we can be secured from them in no other way than by having a navy (marine) and seamen of our own; these can only be obtained by giving a preference. I admit it is a tax, and tax upon our produce, but it is a tax we must pay for the national security. I reconcile it to the interest of the United States that this sacrifice should be made; by it we shall be able to provide the means of defense, and by being prepared to repel danger is the most likely way to avoid it. This tax, therefore, may prevent the horror of a war, and secure to us that respect and attention which we merit." (Mr. Madison, speech in Congress, 1789. First Congress under Constitution.)

"I am not a Federalist, because I never submitted the whole system of my opinions to the creed of any party of men whatever in religion, in philosophy, in politics, or in anything else where I was capable of thinking for myself. Such an addiction is the last degradation of a free and moral agent. If I could not go to heaven but with a party, I would not go there at all." (Letter to Francis Hopkinson, Paris, Mar. 13, 1789, Writings of Thomas Jefferson, vol. 5, p. 76, Paul Leicester Ford.)

WASHINGTON'S MESSAGE.

President Washington in his message of December 8, 1790, said:

"We should not overlook the tendency of a war, and even of preparations for a war, among the nations most concerned in active commerce with this country, to abridge the means, and thereby at least to enhance to price of transporting its valuable productions to their proper markets. I recommend it to your serious reflection how far, and in what mode, it may be expedient to guard against embarrassments from these contingencies by such encouragements to our own navigation as will render our commerce and agriculture less dependent of foreign bottoms which may fail us in the very moments most interesting to both of these great objects. Our fisheries, and the transportation of our own produce, offer us abundant means for guarding ourselves from this evil." (American Navigation. Bates, p. 76.)

"It is true we must expect some inconvenience in practice from the establishment of discriminating duties. But in this, as in so many other cases, we are left to choose between two evils. These inconveniences are nothing when weighed against the loss of wealth and loss of force which will follow our perseverance in the plan of indiscrimination. When once it shall be perceived that we are either in the system or in the habit of giving equal advantage to those who extinguish our commerce and navigation by duties and prohibitions, as to those who treat both with liberality and justice, liberality and

justice will be converted by all into duties and prohibitions. It is not to the moderation and justice of others we are to trust for fair and equal access to market with our productions, or for our due share in the transportation of them, but to our own means of independence and the firm will to use them." (Report on the privileges and restrictions on the commerce of the United States in foreign countries. Secretary of States, 1793, Writings of Thomas Jefferson, vol. 6, p. 483.)

NAVIGATION AND THE FISHERIES.

"But should any nation, contrary to our wishes, suppose it may better find its advantage by continuing its system of prohibitions, duties, and regulations, it behooves us to protect our citizens, their commerce and navigation, by counter prohibitions, duties, and regulations also. Free commerce and navigation are not to be given in exchange for restrictions and vexations; nor are they likely to produce a relaxation of them.

"Our navigation involves still higher considerations. As a branch of industry it is valuable, but as a resource of defense, essential.

"Its value as a branch of industry is enhanced by the dependence of so many other branches on it. In times of general peace it multiplies competitors for employment in transportation and so keeps that at its proper level, and in times of war—that is to say, when those nations who may be our principal carriers shall be at war with each other—if we have not within ourselves the means of transportation our produce must be exported in belligerent vessels, at the increased expense of war freight and insurance, and the articles which will not bear that must perish on our hands.

But it is as a resource of defense that our navigation will admit neither negligence nor forbearance. The position and circumstances of the United States leave them nothing to fear on their land board and nothing to desire beyond their present rights; but on their seaboard they are open to injury, and they have there, too, a commerce which must be protected. This can only be done by possessing of a respectable body of citizen seamen, and of artists and establishments in readiness for shipbuilding.

"Were the ocean, which is the common property of all, open to the industry of all, so that every person and vessel should be free to take employment wherever it could be found, the United States would certainly not set the example of the appropriating to themselves exclusively any portion of the common stock of occupation. They would rely on the enterprise and activity of their citizens for a due participation of the benefits of the seafaring business, and for keeping the marine class of citizens equal to their object. But if particular nations grasp at undue shares, and more especially if they seize on the means of the United States to convert them into aliments for their own strength and withdraw them entirely from the support of those to whom they belong, defensive and protecting measures become necessary on the part of the nation whose marine resources are thus invaded, or it will be disarmed of its defense, its productions will lie at the mercy of the nation which has possessed itself exclusively of the means of carrying them, and its politics may be influenced by those who command its commerce.

MUST HAVE SAILORS AND BUILDERS.

"The carriage of our own commodities, if once established in another channel, can not be resumed in the moment we may desire. If we lose the seamen and artists whom it now occupies, we lose the present means of marine defense, and time will be requisite to raise up others, when disgrace or losses shall bring home to our feelings the error of having abandoned them. The materials for maintaining our due share of navigation are ours in abundance. And, as to the mode of using them, we have only to adopt the principles of those who put us on the defensive, or others equivalent and better fitted to our circumstances." ("Report on the privileges and restrictions on the commerce of the United States in foreign countries." Secretary of State, 1793, Writings of Thomas Jefferson, vol. 6, pp. 480-481. Paul Leicester Ford.)

"To allow trade to regulate itself, is not, therefore, to be admitted as a maxim universally sound. Our own experience has taught us that, in certain cases, it is the same thing with allowing one nation to regulate it for another. Were the United States, in fact, in commercial intercourse with one nation only and to oppose no restrictions whatever to a system of foreign restrictions, they would of necessity be deprived of all share in the carriage, although their vessels might be able to do it cheapest, as well as of the only resource for defense on that side, where they must always be most exposed to attack. A small burden only in foreign ports on American vessels, and a perfect equality of foreign vessels with our own in our own ports, would gradually banish the latter altogether.

"The subject was not a novel one; it was coeval with our political birth, and has at all times exercised the thoughts of reflecting citizens. As early as the year succeeding the peace, the effects of the foreign policy, which began to be felt in our trade and navigation, excited universal attention and inquietude. The first effort thought of was an application of Congress to the States for a grant of power for a limited time to regulate our foreign commerce, with a view to control the influence of unfavorable regulations in some cases, and to conciliate an extension of favorable ones in others. From some circumstances then incident to our situation, and particularly from a radical vice in the then political system of the United States, the experiment did not take effect.

"Out of this experience grew the measures which terminated in the establishment of a Government competent to the regulation of our commercial interests and the vindication of our commercial rights.

"As these were the first objects of the people in the steps taken for the establishing of the present Government, they were universally expected to be the first fruits of its operation." (Speech of Mr. Madison in Congress, 1794. American Navigation. Bates, pp. 43-44.)

A FLEET INDISPENSABLE.

"It is a commonly received opinion that trade should be intrusted to the direction of those immediately interested in it, and that the actual course of it is the best which it could take. This principle is by no means a safe one, and, as applied to the trade of America, is extremely fallacious. It can never be just, where the beginning and

growth of a commerce has not been free from all possible constraints, as to its direction, as that can never be called a business of election which has been created under foreign influence. The manner in which America was first peopled, and the nurture she received from Great Britain, afford the most striking contrast to the requisite before mentioned. The same effects are by no means to be expected from the greatest commercial wisdom in individuals, which are in the power of the general concert of the community."

"The interest of the whole community, not only those who are carriers, but those also who furnish the object of carriage, positively demands a domestic marine equal to its whole business; and that, even if it is to exist under rates higher than those of foreign navigation, it is to be preferred." (Mr. Nicholas, of Virginia, in Congress, 1794. *American Navigation*, p. 99. Bates.)

ENOUGH FOR OUR OWN TRADE.

"Yet this is the real object of the drawback system—it enriches a few individuals, but lessens the stock of native production by withdrawing from them all the hands thus employed; it is essentially interesting to us to have shipping and seamen enough to carry our surplus produce to market; but beyond that I do not think we are bound to give it encouragement by drawbacks or other premiums." (Letter to Benjamin Stoddert, Washington, Feb. 18, 1809, *Writings of Thomas Jefferson*, vol. 9, p. 245. Paul Leicester Ford.)

"You tell me I am quoted by those who wish to continue our dependence on England for manufactures. There was a time when I might have been quoted with more candor, but within the thirty years which have since elapsed how are circumstances changed! We were then at peace. Our independent place among nations was acknowledged. A commerce which offered the raw material in exchange for the same material after receiving the last touch of industry was worthy of welcome to all nations. It was expected that those especially to whom manufacturing industry was important would cherish the friendship of such customers by every favor, by every inducement, and particularly cultivate their peace by every act of justice and friendship. Under this prospect the question seemed legitimate, whether, with such an immensity of unimproved land courting the hand of husbandry, the industry of agriculture or that of manufactures would add most to the national wealth?" (Letter to Benjamin Austin, Monticello, January 9, 1816, *Writings of Thomas Jefferson*, vol. 10, p. 8-9. Paul Leicester Ford, 1899.)

HOME INDUSTRY.

"He, therefore, who is now against domestic manufactures must be for reducing us either to dependence on that foreign nation or to be clothed in skins and to live like wild beasts in dens and caverns. I am not one of these; experience has taught me that manufactures are now as necessary to our independence as to our comfort, and if those who quote me as of a different opinion will keep pace with me in purchasing nothing foreign where an equivalent of domestic fabric can be obtained, without regard to difference of price, it will not be our fault if we do not soon have a supply at home equal to our de-

mand, and wrest that weapon of distress from the hand which has wielded it."

In so complicated a science as political economy no one axiom can be laid down as wise and expedient for all times and circumstances, and for their contraries. Inattention to this is what has called for this explanation, which reflection would have rendered unnecessary with the candid, while nothing will do with those who use the former opinion only as a stalking horse to cover their disloyal propensities to keep us in eternal vassalage to a foreign and unfriendly people." (Letter to Benjamin Austin, Monticello, January 9, 1816, Writings of Thomas Jefferson, vol. 10, pp. 10-11. Paul Leicester Ford.)

"With respect, however, to so much of my letter of January 9 as relates to manufactures I have less repugnance, because it is perhaps a degree of duty to avow a change of opinion called for by a change of circumstances, and especially on a point now become peculiarly interesting." (Letter to Benjamin Austin, Monticello, February 9, 1816, Writings of Thomas Jefferson, vol. 10, p. 11. Paul Leicester Ford.)

SHIPS FOR DEFENSE.

"Before he commenced the proposed investigation he would make a preliminary remark. He took it for granted that it was the settled policy of the nation to become a naval power. Perhaps there is no one question upon which there is more unanimity. From one extremity of the nation to the other there is but one sentiment, but one wish, everywhere expressed, and that is that it may go on to increase; and in fond anticipation, judging from the luster of its achievements during the war, they see in its increase an increase corresponding with the resources of the nation, the guaranty of our safety and glory. But these fond hopes are illusory unless wisdom directs our councils. Vain, foolish, your resolution to build ships unless you protect your navigation. It is not to the superior fixtures of your vessels or the ampleness of their supplies you are to look to victory, but to the number and experience of your sailors. If you suffer the power who looks with jealousy on your rising commerce and with envy on the glory of your Navy to exclude you from the participation of those advantages which of right as being derived from nature belong to you, abandon all thoughts of an efficient marine and withdraw from the ocean." (James Barbour, of Virginia, 1818, American Navigation, pp. 214-215. Bates.)

POLK'S ADVOCACY OF MAIL SUBVENTIONS.

President Polk, in the annual message to Congress in which he recounted the steps that had been taken in pursuance of the ocean mail legislation of the previous session, said: "The enlightened policy by which a rapid communication with the various distant parts of the world is established by means of American-built steamers would find an ample reward in the increase of our commerce and in making our country and its resources more favorably known abroad; but the national advantage is still greater of having our naval officers made familiar with steam navigation and of having the privilege of taking

the ships already equipped for immediate service at a moment's notice, and will be cheaply purchased by the compensation to be paid for the transportation of the mail over and above the postage received. A just national pride no less than our commercial interests would seem to favor the policy of augmenting the number of this description of vessels." (President Polk's message to Congress, 1845, *The American Merchant Marine*, p. 242. Marvin.)

A GEORGIA VIEW.

In advocating his ocean mail legislation, Senator Thomas Butler King, of Georgia, had said: "It is sufficient to show that they (British statesmen) are resolved, as far as practicable, to monopolize the intercourse between these two important points. This movement shows clearly that the time has arrived when we must decide whether we must yield this essential branch of navigation and this indirect means of extending our naval armaments to our great commercial rival, or whether we shall promptly extend to our enterprising merchants the necessary means to enable them to bring American energy, enterprise, and skill into successful competition with British sagacity and capital. Of all the lines of sailing packets which cross the Atlantic not one is owned in Europe, and it is not to be doubted that American merchants properly encouraged will assuredly excel in them (steamship lines), as they have done in sailing vessels; and when we reflect that this may be accomplished to the mutual advantage and advancement of our commercial and military marine, it would seem that no statesman ought to hesitate for a moment to give his support to a measure which is demanded alike by prudence and the necessities of our position." (Senator Thomas Butler King, 1845, *The American Merchant Marine*, p. 241. Marvin.)

THE COLLINS LINE.

"*The Collins Line.*—We must here allude to the last shadow of opposition offered us in the Atlantic trade by our American cousins. They did not view with content the loss of a trade which had, at one time, been so completely in their own hands in the old sailing-packet days. In the end of the forties, Mr. Collins, of New York, who had been largely interested in the packets, determined to oppose the Cunard Company on their own ground. He formed an American company, which, after much thought and inquiry into your ship-building and engineering practice, constructed four splendid paddle steamers—the *Arctic*, *Atlantic*, *Pacific*, and *Baltic*. These were well designed, upon the famous clipper lines, and larger and more powerful in every way than the Cunard boats then in existence or building, which the *Asia* and *Africa* then were, and their proposed dimensions and power well known to Collins.

"It need hardly be said that they were successful in beating the Cunarders. The older boats were much inferior to them, and the new *Asia* and *Africa* barely maintained their own. On the 20th of May, 1851, the whole of Liverpool was thrown into excitement upon learning that the *Pacific* had reached Holyhead from New York in nine days, nineteen hours, and twenty-five minutes, then an unprecedented passage. And so once more our American cousins had low-

ered the British flag and beaten the record. This successful opposition lasted a few years, but it was carried on at such a cost that it became its own Nemesis and was eventually terminated in 1858. The terrible losses of the *Arctic* and *Pacific*, with many lives, and the success of the new Cunard iron steamship *Persia*, succeeded in turning the tide once more in favor of Great Britain.

OPPOSING SCIENTIFIC PROGRESS.

"To this end perhaps another cause had a determining effect. The American packet owners, finding their trade gradually slipping out of their hands, raised an outcry against the employment of steam, and, little thinking how futile was such an opposition, prevailed upon the American Government to withdraw its mail subsidy from their own steamers, which left the field clear for British opponents. This is another clear instance of the futility of opposing scientific progress. The immediate effect was the investment of American money in many lines of steamers sailing under the English flag, which redounded to the profit of British masters and crews, as well as that of the steamship managers in Britain, and gave an immense spurt to her nominal tonnage." (Charles Griffin & Company's Nautical Series, *The British Mercantile Marine*, p. 91, 1897.)

"Under modern conditions, however, home trade is but a part of the business of a country bordering on the sea. Foreign necessities or luxuries must be brought to its ports, either in its own or in foreign ships, which will return, bearing in exchange the products of the country, whether they be the fruits of the earth or the works of men's hands; and it is the wish of every nation that this shipping business should be done by its own vessels. The ships that thus sail to and fro must have secure ports to which to return, and must, as far as possible, be followed by the protection of their country throughout the voyage.

WAR AND MERCHANT NAVIES.

"This protection in time of war must be extended by armed shipping. The necessity of a navy in the restricted sense of the word, therefore, springs from the existence of a peaceful shipping, and disappears with it, except in the case of a nation which has aggressive tendencies and keeps up a navy merely as a branch of the military establishment. As the United States has at present no aggressive purposes, and as its merchant service has disappeared, the dwindling of the armed fleet and general lack of interest in it are strictly logical consequences. When for any reason sea trade is again found to pay, a large enough shipping interest will reappear to compel the revival of the war fleet. It is possible that when a canal route through the Central American Isthmus is seen to be a near certainty, the aggressive impulse may be strong enough to lead to the same result. This is doubtful, however, because a peaceful, gain-loving nation is not farsighted, and farsightedness is needed for adequate military preparation, especially in these days." (*The Influence of Sea Power upon History, Period 1660-1783*, p. 26. Mahan. 1898.)

CAPT. MAHAN'S WARNING.

"When the day comes that shipping again pays, when the three sea frontiers find that they are not only militarily weak, but poorer for lack of national shipping, their united efforts may avail to lay again the foundations of our sea power. Till then those who follow the limitations which lack of sea power placed upon the career of France may mourn that their own country is being led by a like redundancy of home wealth into the same neglect of that great instrument." (The Influence of Sea Power upon History, Period 1660-1783, p. 39. Mahan. 1898.)

"For example, formerly and up to the end of the great wars following the French Revolution the population of France was much greater than that of England, but in respect of sea power in general, peaceful commerce as well as military efficiency, France was much inferior to England. In the matter of military efficiency this fact is the more remarkable because at times, in point of military preparation at the outbreak of war, France had the advantage; but she was not able to keep it.

FRANCE AND ENGLAND.

"Thus in 1778, when war broke out, France, through her maritime inscription, was able to man at once 50 ships of the line. England, on the contrary, by reason of the dispersal over the globe of that very shipping on which her naval strength so securely rested, had much trouble in manning 40 at home; but in 1782 she had 120 in commission or ready for commission, while France had never been able to exceed 71. Again, as late as 1840, when the two nations were on the verge of war in the Levant, a most accomplished French officer of the day, while extolling the high state of efficiency of the French fleet and the eminent qualities of its admiral, and expressing confidence in the results of an encounter with an equal enemy, goes on to say: 'Behind the squadron of 21 ships of the line which we could then assemble there was no reserve, not another ship could have been commissioned within six months.' And this was due not only to lack of ships and of proper equipments, though both were wanting. 'Our maritime inscription,' he continues, 'was so exhausted by what we had done (in manning 21 ships) that the permanent levy established in all quarters did not supply reliefs for the men, who were already more than three years on cruise.'

NEED OF A RESERVE.

"A contrast such as this shows a difference in what is called staying power, or reserve force, which is even greater than appears on the surface; for a great shipping afloat necessarily employs, besides the crews, a large number of people engaged in the various handicrafts which facilitate the making and repairing of naval material, or following other callings more or less closely connected with the water and with craft of all kinds." (The Influence of Sea Power Upon History, Period 1660-1783, pp. 45, 46. Mahan. 1898.)

"Though the treatment of the subject has been somewhat discursive, it may be admitted that a great population following callings re-

lated to the sea is, now as formerly, a great element of sea power; that the United States is deficient in that element, and that its foundations can be laid only in a large commerce under her own flag." (The Influence of Sea Power Upon History, Period 1660-1783, p. 49. Mahan. 1898.)

STATEMENT OF J. SCOTT PARRISH.

Mr. POWELL. We have with us Mr. Parrish, of Richmond, Va.

Mr. PARRISH. Mr. Chairman and gentlemen of the Commission: Richmond, the largest manufacturing city of the South, is especially interested in the merchant-marine question. We are largely making goods in our various plants that are used in the foreign markets, but low freights are essential for the development of these enterprises, and low ocean freights can not be secured unless there is more competition in the carrying trade.

We feel that a larger business can be developed in every branch of industry, including all farm products, provided lower rates can be secured.

Germany has made wonderful strides in all branches of manufacturing. The Germans are shrewd, progressive, painstaking, and are to-day the most American of our foreign competitors; and to offset their progressiveness we as a nation are vitally concerned in the upbuilding of our foreign trade, and it is necessary for us for our own future salvation to stimulate the merchant marine.

Ten years of especially low import duties on all imports brought into the United States in American bottoms, with the gradual withdrawal of this protection in the following ten years, would establish both the American shipbuilding companies and the American owners on such a firm basis that, in my opinion, they could at the expiration of this twenty-year period be in a position to take care of themselves on a profitable basis.

HOW TO GET CHEAPER SHIPS.

In no branch of manufacturing, except shipbuilding, does England excel us. With a larger product, then, for our shipyards, why can't we expect the same results? The making of cheap goods is always determined, as to labor cost, on duplication. The more you make of any one article that is exactly alike, the cheaper per piece they can be made. And the same should hold true as to the cost of the crew. The very best thought will go into the problem of increasing the effectiveness of the men aboard ship, by mechanical means, so that in twenty years the difference in the cost of an American crew over an English crew will not be a matter of such importance.

The twenty years' experience thus gained by our great shipyards will, in my opinion, enable us to build better and cheaper boats than any other nation of the world; so that in 1925 we shall not only be the richest and most progressive nation of the world, but we shall be and will always remain the mistress of the seas.

STATEMENT OF E. T. D. MYERS, JR.

Mr. POWELL. We will next hear from Mr. Myers, of Richmond.

Mr. MYERS. Mr. Chairman and gentlemen of the Commission, in representing the chamber of commerce of Richmond we will not attempt to add suggestions to those already made by able representatives of communities qualified by larger experience and more direct interest in ocean merchant marine; but desire to express our earnest wish that effective legislation may, at an early date, be accomplished to restore our flag on the high seas.

We are, however, as large exporters of manufactured articles, intensely concerned in ocean freights, and believe the reestablishment of our merchant marine will ultimately effect lower rates.

We are immediately interested in the building of merchant vessels, as we hope it may lead to the reopening and successful operation of the shipyard located within our borders.

Of the several suggestions looking to remedial legislation, we advocate the modified duty on imports carried in American bottoms, believing with our able Senator Martin that this, rather than direct subsidy, will receive favorable action by Congress.

The suggestion that an academy for training officers for the merchant marine be established and maintained by the General Government meets with our hearty indorsement.

STATEMENT OF J. J. THOMPSON.

Mr. POWELL. Mr. J. J. Thompson, who represents the seamen, is present.

Mr. THOMPSON. Mr. Chairman and gentlemen, I have the pleasure of representing the seamen's union in the port of Norfolk. I have just a few recommendations to make.

Senator MARTIN. We are very glad to hear suggestions from practical men.

Mr. THOMPSON. I have, as I said, a few recommendations to make with respect to laws relating to seamen.

I would ask that we be given an efficiency bill; second, that we be given a manning scale, as it is a well-known fact that in the coastwise trade here some of these vessels go to sea, for instance, a vessel carrying 1,500 tons of coal, with four men before the mast.

Senator MARTIN. You refer to the coastwise trade?

Mr. THOMPSON. Yes, sir; the coastwise trade. She carries one man at the wheel—of course there are two watches one below—one at the wheel, and one on the lookout. In case of bad weather the lookout has to be called on deck, and that is responsible for a good many collisions on this coast and offshore.

WHAT THE SAILORS ASK.

I would next make a suggestion as to the towage of barges. In towing three or four barges with a cable 200 fathoms long, if a sailing vessel is coming in it simply takes the boom gaff right off of her. Of course the vessel is simply disfigured. It will take her boom right out of her. It is claimed they are not in a seaworthy condition.

I ask that we be given a load line on these vessels.

I would ask to have each and every man who goes on board vessels brought before a commissioner. We do not know who is aboard a vessel in case she is lost. We can not get their names or addresses. I would recommend that, Mr. Chairman. I do not know that I have any further suggestions to make.

Senator MALLORY. What was the first suggestion you made as to an efficiency bill?

Mr. THOMPSON. These vessels down here carry men who are not competent. One-half of them can not steer the vessel. They can tell a green light from a red light, but if asked what tack the vessel is on they can not tell.

Senator MALLORY. Do you mean you would like to have some legislation whereby every man who ships aboard a coastwise vessel shall undergo an examination as to seamanship?

Mr. THOMPSON. Yes, sir.

Senator MALLORY. And ability?

Mr. THOMPSON. Yes, sir. As it is now a man goes aboard a schooner who has never seen salt water in his life. He is given a seaman's discharge. Another captain, looking at his papers, takes him on board. But he is not a competent man. I would suggest that there be some way to regulate that.

OFTEN UNDERMANNED.

Senator MALLORY. You think, as a general rule, our coastwise vessels are undermanned?

Mr. THOMPSON. Yes, sir; I have been in vessels myself where they have been undermanned.

Senator MALLORY. I am speaking of the general rule.

Mr. THOMPSON. Yes, sir.

Senator MALLORY. You think in a majority of cases our three or four or five masted schooners are undermanned?

Mr. THOMPSON. Yes, sir; I do. I claim they are undermanned.

Senator MALLORY. How many men do you think a four-masted schooner of 800 tons should carry?

Mr. THOMPSON. She ought to carry six men.

Senator MALLORY. Does that include the cook?

Mr. THOMPSON. No, sir; just the seamen.

Senator MALLORY. Six seamen?

Mr. THOMPSON. Six in the fore-castle. A vessel of that tonnage would only carry four, and if anything happens to the man on the lookout and there is an extra man he could be relieved, whereas if she has only four and anything happens to the lookout there would be no one on the lookout. That is the cause of collisions and of a good deal of trouble that vessels get into.

Senator MALLORY. Have you had experience with these tows of barges to which you have referred?

Mr. THOMPSON. Yes, sir.

LONG BARGE TOWS.

Senator MALLORY. You referred to them as being obstructions to navigation?

Mr. THOMPSON. Yes, sir; I have been barging myself.

Senator MALLORY. Between what ports?

Mr. THOMPSON. From here to Boston; Bangor; along the coast.

Senator MALLORY. On an average, how many barges are attached to one tow going out from here in the coal trade?

Mr. THOMPSON. They all carry three.

Senator MALLORY. Three.

Mr. THOMPSON. Three barges.

Senator MALLORY. Two hundred fathoms apart?

Mr. THOMPSON. Yes, sir; and sometimes more.

Senator MALLORY. And 200 fathoms of line from the tugboat?

Mr. THOMPSON. Yes, sir; which would be 600, and then the length of the three barges and of the tugboat.

Senator MALLORY. It would be pretty close to a mile?

Mr. THOMPSON. Yes, sir; and a vessel coming from Cape Henry here, with a narrow channel, has no show whatever, especially down here in the Roads.

Senator MALLORY. Have you anything to say concerning the manning of these barges?

Mr. THOMPSON. Yes, sir; I would recommend that one towboat carry one barge, and of course carry then about four or five men.

Senator MALLORY. Do you know anything about how these barges are manned now? Are they manned by competent men, by sailors?

MANNING OF BARGES.

Mr. THOMPSON. No, sir. Sometimes they go out of here with only two or three men aboard of them. It is a common thing to see these barges leaving port every day with one, two, or three men aboard. They pick up a green man. They do not pay any money.

Senator MALLORY. As a rule, are they seamen?

Mr. THOMPSON. No, sir; they have had no experience whatever; not the least.

Senator MALLORY. If they get into trouble and have to cut adrift from the towboat are they able to handle the ship?

Mr. THOMPSON. No, sir; they can not handle the barge. She has no rigging.

Senator MALLORY. They have fore and aft sails?

Mr. THOMPSON. They can hoist them, but that is all they can do; they are practically helpless in the sea.

BETTER FORECASTLES.

Another matter of which I wish to speak is the forecastles in coast-wise vessels. More than a majority of them are in an insanitary condition. Take a vessel carrying six men, and two men have to get out while the other four are dressing or eating. They have not proper heat in them. It is an ordinary thing to see ice in the water in the forecabin in winter time. The men have no place to dry their clothing when they get wet.

Senator MALLORY. What do you mean by a load line; a mark similar to the Plimsoll line?

Mr. THOMPSON. Yes, sir; give a vessel a chance. They load them up fearfully. You can stand on deck and dip a bucket of water. I strongly recommend that they be given a load line.

Senator MALLORY. Do you think it is customary to overload vessels sailing out of this port?

Mr. THOMPSON. They put on every pound of coal they can get into them.

Senator MALLORY. Do you mean to say that they are overloading as a general rule?

Mr. THOMPSON. Yes, sir; I do. I claim they are overloaded.

Senator MALLORY. That means they are unsafe at sea?

Mr. THOMPSON. Yes, sir; they are unsafe at sea.

Senator MARTIN. We are very much obliged to you.

STATEMENT OF C. W. ROBINSON.

Mr. POWELL. I understand that the Central Labor Union has prepared a paper which a representative wishes to read.

Senator MARTIN. We shall be pleased to hear from him.

Mr. ROBINSON. I have a very short paper, about three pages, which I have been requested to read to the Commission and to file with it:

Mr. Chairman and Gentlemen of the Merchant Marine Commission: As the representative of the Central Labor Union of Newport News, an organization composed of the various labor unions in this city, I appear before you to-day to urge upon you, and through you, the Congress of the United States, the necessity of such legislative enactments as will revive our merchant marine.

We do not pretend to be able to point out the best method of restoring this dormant industry; but we realize that favorable legislation is greatly needed, for this country's prestige upon the high seas has gradually faded into insignificance. We ask that something be done, and leave the method of doing it to the superior judgment of you gentlemen who have been elected by the people to legislate in the best interest of the whole country.

SPEAKING FOR THE WORKMEN.

In nearly every city where this Commission has held sessions for the purpose of gathering information on this important subject, representatives of labor have appeared before you and appealed to you to do something that will rehabilitate our shipping. Especially has this been true of the Brotherhood of Boilermakers and Iron Shipbuilders of America; and I have been commissioned to come here to-day and in the name of the workingmen of Newport News reecho the sentiments that have been so forcibly expressed by the friends of labor. I am not here in the interest of capital, but in the interest of labor—men who want an opportunity to work at living wages.

Capital can take care of itself, as avenues of profitable investment are always opening to it. But not so with the workingman; he must have an opportunity to work. So I share the views of those representatives of labor who have already spoken before you, that labor will be benefited as much—if, in fact, not more—by the upbuilding of our shipping than capital, for it will open a greater field of employment. I doubt if there is any industry that pays more for labor in proportion than shipbuilding. Nearly three-fourths of the cost of building a ship is in labor. And what does that mean? Gentlemen, it means that the money paid the mechanics in the shipyards is put immediately into circulation, and thereby benefits the merchant and

the farmer. But I will go further and venture the assertion that a revival of our shipping will benefit the entire country.

LABOR'S GREAT INTEREST.

First. It will give employment to thousands of mechanics and laborers in the shipyards of the United States.

Second. It will give employment to thousands of mechanics and laborers in the rolling mills, lumber mills, coal fields, and factories which will furnish the material for building ships, for this country can furnish everything that enters into the construction of a vessel.

Third. It will give employment to thousands of Americans on the high seas at greater wages than the foreign mariner now commands. Under present conditions but few of our young men seek employment on the seas with the view of becoming engineers or masters of vessels, for the reason there is no opening for them outside of the coastwise trade, which is protected by our Government, and that is overcrowded.

Fourth. It will open up larger trade relations with foreign countries, especially with the South American republics, and extend the market for products of American factories and American farms, and thus give greater employment to labor.

WE WANT TO LIVE.

I might go on and point out other ways in which the country, and especially labor, would be benefited, such as building up an auxiliary to our Navy and reestablishing our prestige upon the high seas; but the members of this Commission are better able to foresee this than I am. My purpose is not to deluge you with statistics and platitudes, but in an humble way to impress upon you the urgent need of doing something to rehabilitate our merchant marine. There is no better mechanic than the American, and if you will give us the opportunity we will demonstrate that we can build the finest ships that ever floated; but I am frank to say we can not do it as cheaply as the foreign mechanic, for we must have better wages. We are not satisfied to live as the foreign wage-earner is compelled to eke out an existence. In other words, we are not satisfied to merely exist—we want to live.

We do not regard the question as a partisan one, and we do not urge you as Democrats or Republicans, but as citizens, to legislate with a view of building up an important industry, whether it be by a system of subsidies or differential duties or levying port taxes, or by a combination of all three; but we do ask that you see to it that it is not done by lowering the wages of the men who work with their hands. Enact such a law as will encourage both capital and labor and result in the carrying of American products in American-built ships, manned by American seamen, and save to this country the vast sum of \$200,000,000 now paid out annually in freights to foreign shipowners, and, having done this, you will bring greater glory to the nation, peace and contentment to a large army of workingmen and their families, and a safe investment to capital.

H. L. HULLER,
President Central Labor Union.

J. B. CLINEDINST,
Secretary Central Labor Union.

This petition was got up last night by the Central Labor Union, and the gentleman to whom it was given, for some reason, could not get here, and I was requested to read it and file it with your commission.

Mr. POWELL. The members of the Commission will understand what is meant by the Central Labor Union. It is composed of representatives of the various unions.

Senator MARTIN. I understand what the organization is, but it is well for that statement to go into the record.

STATEMENT OF FRANCE J. GERMAN.

Mr. POWELL. I understand there are present some actual seamen.

Senator MARTIN. If there are any present, we shall be glad to hear from them.

Mr. GERMAN. Mr. Chairman and gentlemen of the Commission, I have been a seaman for the last nineteen years. I have been in German ships. I started out as a boy. I have been in the fore-castle about all the time, with the exception of a little while. I have been out in my own country's vessels, and I have been in English vessels, and I also have in the last thirteen years been in American vessels. I can not tell you much about how to improve the shipping, but I can tell you something about the wages and the treatment men receive on different vessels and the different accommodations.

AMERICAN WAGES BEST.

An able seaman receives on a German vessel about £2 10s. a month in the foreign trade, and in the English vessels about £3, that is, \$15, about that, I think; and in American vessels in the foreign trade he receives \$20 a month, that is, about £4. So you easily see the difference.

I can not complain of the scale of provisions in American vessels. As a rule it is good, although it varies a great deal with the different men who are in command of the vessels. But on the average it is as good as can be expected.

One thing that I should like to impress upon you is that the reason why there are so few Americans, born Americans, in American vessels to-day, it seems to me, is that no support is given, no encouragement is extended, to the American young men. I think that accounts for the total absence of American boys on American vessels. I believe that a good many Americans would go to sea if they could start as boys. It is a hard thing to start in after a man is old.

The fore-castle, the accommodations for seamen, are in general very small, so small that one man has to go outside while the other man is dressing. American people do not like that kind of treatment. They are used to living differently. I have lived in this country long enough to try to make it my home, and I find that Americans do not want to stay in those quarters. That is the reason why they are absent from the ship. The foreigners like to stay here because the wages are somewhat better. I make this country my home.

AS TO UNDERMANNING.

Another thing I should like to impress upon you is the undermanning of vessels. In May I was in a vessel carrying two hundred tons, and all we carried were two men before the mast, with the captain and cook; no mate. You can easily see there is something wrong when there is but one man on deck and that man has to stay at the wheel four hours. There is something seriously wrong.

Senator MALLORY. From what port did you sail?

Mr. GERMAN. From the port of Rockland, Me.

Senator MALLORY. To what port?

Mr. GERMAN. To New York, on that trip; but I have been sailing for the last four months out of Norfolk, Va. So you see I was alone taking those four hours, and I had orders to call the captain if anything turned up. But do you not see when a fellow has to give his attention to the wheel and steering he has very little chance to look under the sails in order to look out for vessels? A good many accidents are due to that fact.

Then, another thing we need in this shipping is competent men. I certainly believe there should be some kind of a difference made between competency and incompetency, and it is, I think, for you gentlemen to decide if there should be any such law passed. I do not know.

SMALL CREWS.

Senatory MALLORY. Let me ask you a question. In your experience, is it the usual thing for vessels of 200 tons to have but two men before the mast?

Mr. GERMAN. Yes, sir.

Senator MALLORY. In the coastwise trade?

Mr. GERMAN. Yes, sir.

Senator MALLORY. You think that is a common occurrence?

Mr. GERMAN. Yes, sir; it is a common occurrence. The vessel we went to South America on carried 800 tons, and we had four before the mast and a mate and second mate and cook and captain.

Senator MALLORY. What was she?

Mr. GERMAN. A three-masted schooner that went down to Brazil. I was in one three-master, carrying 1,000 tons. We went to Nova Scotia. We had only four men before the mast, and the forecabin was small. When two men were dressing the other two had to turn out or lie in their bunks.

Senator MALLORY. Did it have a donkey engine?

Mr. GERMAN. Yes, sir; and steam, and all the space in the forward house was taken up for that, to the detriment of the seamen.

Senator MALLORY. Do you say you did not have room enough to sleep comfortably aboard that vessel?

Mr. GERMAN. We had room enough to sleep comfortably, but, when it came to eating or dressing, one man at a time had to go to the table and get his food.

Senator MALLORY. What was her name?

Mr. GERMAN. The *Helena*.

Senator MALLORY. Where from?

Mr. GERMAN. New York. She was built at Bath, Me.

Senator MALLORY. A three-masted schooner?

Mr. GERMAN. Yes, sir.

Senator MALLORY. Of about 1,000 tons?

Mr. GERMAN. Yes, sir; she would carry about that.

Senator MALLORY. What is the name of the vessel in which you went to Brazil?

Mr. GERMAN. The *Annie R. Bishop*.

Senator MALLORY. Where was she from?

Mr. GERMAN. Philadelphia.

Senator MALLORY. A three-master?

Mr. GERMAN. Yes, sir; a three-master.

Senator MALLORY. She was about 800 tons?

Mr. GERMAN. She carried that—about that. Are there any other questions?

Senator MALLORY. I think I interrupted you. You were going to say something else. I do not want to cut you off if you have anything more to say.

ADVANCE WAGES.

Mr. GERMAN. There is one thing more I would like to say. It would be a good plan, I think, to give these vessels a load line. Nowadays they load vessels very deep. I conclude, in my judgment—although I do not know whether I am right—that a vessel in that condition going to sea is unseaworthy. In other countries that is not permitted. The English vessel has to have a load line.

Furthermore, I should say that in the foreign trade I would abolish advance wages. I was in the States when we had advance wages, and we got advance every time we shipped; and that created a system of boarding houses, and no man could ship unless he was in a boarding house; and it also created a lot of incompetent men, because the boarding houses would pick up anybody and take him in the boarding house and ship him, because they knew if they kept him four or five days they would get \$5 or \$6 or \$10 advance—whatever there was to be got out of him—and the men were put on board regardless of competency.

If that is abolished and the seaman has to look out for himself, it will make a better man of him, a more competent man of him, and he will be better able to do his work when he goes on board his vessel, because a man who is able to look out for himself is better able to look out for the interests of others—for the man who hires him.

Senator MALLORY. Are you a navigator?

Mr. GERMAN. No, sir.

Senator MALLORY. Have you ever gone as mate?

Mr. GERMAN. I have in my own country's vessels.

Senator MALLORY. You have not on an American vessel?

Mr. GERMAN. No. The only thing that hinders me is that I have neglected to get my full papers.

Senator MALLORY. You never have been naturalized?

Mr. GERMAN. I have my first papers.

Senator MALLORY. What is your present occupation?

Mr. GERMAN. The last vessel I left four days ago. I was in the *John R. Halladay*.

Senator MALLORY. You are doing nothing now?

Mr. GERMAN. I am waiting for a chance. I want to go home. I make my home down East. I am going to stay home for the winter. In the spring I am going again.

Senator MALLORY. You have lived in this country nineteen years?

Mr. GERMAN. Thirteen years.

Senator MALLORY. What is your nationality?

Mr. GERMAN. German. I was born in Germany.

STATEMENT OF W. S. UPSHUR.

Mr. POWELL. We have with us Mr. W. S. Upshur, of the Chesapeake and Ohio Railroad, who, I think, can give you some very valuable information on the transportation of grain.

Senator MARTIN. We shall be pleased to hear from Mr. Upshur.

Mr. UPSHUR. Mr. Chairman and gentlemen, this is entirely unexpected. While my chief, Mr. H. E. Parker, superintendent of terminals of the Chesapeake and Ohio Railway Company, made a statement before the subcommission this morning, yet it is possible that he is not entirely acquainted with absolutely all the details of my part of the business, some of which may prove of interest. I am the agent of the Chesapeake and Ohio Grain Elevator Company, and look after the grain business of the Chesapeake and Ohio Railway Company at this port.

ALMOST NO GRAIN IN AMERICAN SHIPS.

Gentlemen, it occurs to me that it may be of interest to you to know that in the fifteen years in which I have represented the Chesapeake and Ohio Railway Company here, we have exported about 200 million bushels of grain, probably 75 per cent of which was maize, and during that period less than a half a million of bushels was exported in American ships, and while there is food for reflection in this, yet it does not imply as much as it would at first blush seem to from a mercantile standpoint, for during these fifteen years I have seen several periods of ocean freight depression when grain was transported at 6d. per quarter of 480 pounds, and New York liners have paid for the privilege of carrying it (they had to have it for ballast). The English ships, which carry about 90 per cent of the grain exported from this port, were forced to carry it during such periods of ocean freight depression owing to the fact that they were regular liners; and general cargo being scarce, it was absolutely necessary to take the grain at any rate offered to fill the ships.

When I first took charge of these elevators it was usual for quite a number of vessels each season to take full cargoes, "Cork for orders;" that is, vessels so loaded would proceed to Cork, Queenstown, or Falmouth, and on arrival at one of these ports would receive orders to proceed either to a port in the United Kingdom or to a Continental port as owner of the grain might direct. That mode of shipment has been almost entirely done away with at present, and most of the grain exported from this country is carried in ships taking it as part cargo for freight and filling with general cargo.

THE EXPORT TRAFFIC.

The export grain business of the country has been very light for the past three years, owing to the fact that the crop of 1901 was a failure so far as corn was concerned. In 1902 the corn crop was large as to quantity, but was very poor as to quality, due to the fact that to prevent it being frost-nipped the farmers had to cut it before it was properly matured; in many cases the milk would spatter the wagon it was hauled from the fields in, and, of course, a large proportion of such corn rotted on the cob in crib. The crop of 1903 was about the same as to quantity, quality, and condition as that of 1902, and in consequence the United States grain exports reached the lowest level of a great number of years. This year we have, according to Broomhall, who is the great grain statistician, the finest crop of corn in quantity, quality, and condition that we have had in years; in fact, the greatest, with one exception, in the history of the nation.

The wheat crop is a failure, and to such an extent that a number of the Northwestern millers, in order to keep up the standard of their export brands of flour, have been forced to bond their mills, import wheat from Manitoba, and mill it in transit, thereby escaping the duty on imported wheat.

EUROPE SHORT OF GRAIN.

In all other grains we have excellent crops, and, fortunately for us, Europe is short of everything in the way of grain. Some of the European countries—for instance, the Danube provinces—ordinarily exporters of grain, are importers this year. England and the majority of the continental countries, normally short of grain, are more so than usual this year, consequently, as Broomhall says, in maize particularly, Europe will have to look to us to supply her for the next six months, especially as shipments of maize from the Argentine have practically ceased. From a strictly mercantile basis, I do not believe we would as a nation gain anything by having a large American merchant marine, nor do I believe that one could exist unless heavily subsidized, either directly or indirectly. The strong opposition in ocean carrying between the English, German, Norwegian, and other European ship-owners secures us the lowest ocean freights on all of our exports when the volume of latter is normal; and when very light, as of late, large numbers of foreign vessels are put out of commission, and those retained, particularly regular liners, have to accept what goods are offered at ruinous rates of freight. A merchant in Liverpool will order through his New York broker so much grain—say 5,000 quarters of “No. 2 mixed” corn—at a certain price “c. i. f.” (i. e., cost, insurance, and freight) Liverpool, to be loaded aboard ship within a stated time. He does not care whether it is loaded aboard ship at Portsmouth, N. H., Galveston, or any of the intermediate ports, nor does he care anything about the flag of the vessel carrying it (he simply wants it delivered at Liverpool for so much money), and the American merchant who sells the grain is equally indifferent as to the nationality of the carrier.

FOR WAR PURPOSES.

He is only solicitous as to the ship engaged being insurable, and that she will meet the requirements of his sale as to quantity and time

of loading. Therefore, I repeat that I do not think the rehabilitation of the United States mercantile marine would redound to our benefit from a strictly mercantile basis, but it does occur to me that we want the United States mercantile marine rehabilitated and kept in a high state of efficiency for war purposes. We have become a world power of the first magnitude; and to safeguard the responsibilities which that position entails upon us we must have not only battle ships, cruisers, torpedo boats, and submarines, but also we must have the necessary vessels with which to transport our troops, munitions of war, etc. Therefore, it occurs to me, gentlemen, we can well afford to lay aside the sentimental portion of this matter and accept the fact that we need these ships as auxiliaries to our Navy, and arrange to secure them in some manner that will not unduly advertise our purpose to our friends on the other side of the Atlantic.

Senator MALLORY. Let me ask you a question right here. Do you think an established line between Newport News or Norfolk and Rio Janeiro, running steamers twice a month regularly, would contribute at all to any trade between Rio Janeiro and these ports?

Mr. UPSHUR. I am quite sure it would. We had one several years ago running from New York to Rio Janeiro via Newport News.

Senator MALLORY. Have you one now?

Mr. UPSHUR. No, sir; but we had one; I was with the Chesapeake and Ohio Railway Company as chief clerk when they had one.

A BRAZIL LINE.

Senator MALLORY. Did it pay?

Mr. UPSHUR. I think it would have paid had it been properly managed; but it was badly managed—very badly managed.

Senator MALLORY. Then it did not succeed because of bad management rather than because of any intrinsic inability to succeed?

Mr. UPSHUR. Yes, sir; I think so. The steamers were loaded from half to two-thirds full at New York, and the balance of the cargo was taken from Newport News, and they always left some freight, there being always more freight offered than they could carry. The line should have made money, but it was horribly handled.

Senator MALLORY. Did they bring any freight this way?

Mr. UPSHUR. Yes, they carried freight to New York, largely coffee. Freight destined for Newport News by that line usually reached us by the Old Dominion Steamship Line from New York.

Senator MALLORY. Then establishing lines with those countries with which we could interchange products you think would be advantageous from a material view aside from the national point of view?

FAST MAIL BOATS.

Mr. UPSHUR. I do; and more particularly with South America, for we have a very small trade with South America as compared with its total trade. But in trans-Atlantic business I do not believe we would gain anything by owning the ships, unless such ships were fast mail boats which could be converted into scout ships or auxiliary cruisers.

Referring again to our great export corn crop, not only the corn as grain, but the products of corn—corn meal, glucose, sirup, provisions of nearly every kind, and many other things that corn enters

into directly or indirectly. You will, perhaps, have observed that when we have a failure in the corn crop exports are proportionally light in everything except, perhaps, manufactured metals and cotton, and when exports are so light, it is then that the foreign freight carrier has to take for ocean freight anything that he can get or lay his ship up.

Senator MALLORY. Right here is a question I should like to ask you, although you may not have the information I wish. Do you know whether on flour, say, the railroads striking the seaboard make a discrimination between the rates for exportation and those for consumption on this side?

Mr. UPSHUR. If they do not on flour, they do on grain generally.

Senator MALLORY. They do in grain generally?

Mr. UPSHUR. Yes, sir.

WHEN OUR SHIPS WERE LOST.

Senator MALLORY. Do they also do it in flour and other products?

Mr. UPSHUR. I suppose they do. They do in grain, I know. In the matter of the decadence of the shipping trade of the United States, I think, apart from all other things that have been said on the subject, that the Confederate States cruisers had more to do with the breaking down of the United States ocean commerce than everything else put together. What ships they did not sink they drove under the flags of other nations, "whitewashed" them. The fact that our laws did not permit of such ships coming again under our flag, together with the further fact that the big people in the shipping business, such as the Vanderbilts and the Astors, who had great big shipping interests at the commencement of the war, had prior to the war found that they could make more money in railroading, and after the war turned their attention to the extension of their railroad interests rather than the extension or the rebuilding of the United States merchant marine, accounts for the practical extinction of the latter. Its rehabilitation has been retarded largely by the fact that the people of the United States found their chances for money making a vast deal better ashore than afloat; but still I maintain that the United States should have a big merchant marine for war purposes.

Senator MARTIN. Mr. Upshur, we are very much obliged to you for your statement.

REMARKS OF A. L. POWELL.

Mr. POWELL. Mr. Chairman, I observed awhile ago that Mr. German stated that many ships leave our port in a condition other than that of seaworthiness, the specific statement being that they were overloaded. I have looked around the room to find some one who has something to do with the loading of ships in this port, with a view of asking him to make a statement, but I do not find anyone. Therefore, there is no one present to refute Mr. German's statement. I think he must have referred more particularly to coal barges, which do not have very far to go, or something of that kind.

Senator MARTIN. I will say to Mr. Powell that if he has anyone here who is familiar with that subject—and I have no doubt there are such men in Newport News—and who will, in addition to general

familiarity with it, investigate the matter and forward a paper to the chairman of this Commission at Washington, it will be put in the record. Let the facts be given, either in corroboration of what has been said, or in correction of it, if there is any error, or if there be a difference of opinion on the subject. Mr. German gave his understanding of the matter, and we shall be very glad to have a carefully prepared paper from some citizen of your city who may be willing to make a careful investigation of it. Such a paper, if prepared and sent to the Commission at Washington, will be put in the record.

Mr. POWELL. Very well, sir. We will act upon your suggestion.

Mr. J. J. THOMPSON. There is a gentleman here who is familiar with that question—Mr. Barton.

Senator MARTIN. The question of loading?

Mr. THOMPSON. The question of loading and shipping in general.

Senator MARTIN. We shall be very glad indeed to hear him.

STATEMENT OF W. B. BARTON.

Mr. BARTON. Mr. Chairman and gentlemen of the Commission: I have one or two suggestions I wish to present to you to-day in reference to the merchant marine and the seamen. I assure you, gentlemen, that with the subjects I will bring before you I am absolutely familiar, and know them from A to Z. I have been in contact with seamen from the time I was 12 years of age, and with shipping in general. One of the humble sides of my practice as a lawyer is, and has been for a great many years, that relating to legal matters pertaining to seamen.

Mr. Bickford a few moments ago attempted to show the causes for the decadence of the American seaman. He showed simply one cause. That cause, even though it were remedied, would not encourage the American youth to go aboard our ships under present conditions.

The first thing to which I wish to call your attention—I will take up the load line presently—is this: I have been interested in these questions for the longest time. I have on occasions presented them in public in Norfolk, where I reside, and have done what I could and to the best of my ability to create public sentiment upon these matters. I have as well submitted one or two of the questions to Mr. Chamberlain, in Washington, at the Bureau of Navigation, Department of Commerce. Nothing has ever come from it. My interest and my feeling in this matter have induced me to come here and present these points. I thought this an opportune time and the best time to get the questions before the Commission and perhaps to get legislation.

SHANGHAING OF SEAMEN.

The first point is this: The seamen of this port are shanghaiied. They are taken aboard a ship drunk. I have known of instances right in the port of Norfolk where men have been hoisted aboard ship in potato sacks. They were so drunk they could not get them aboard in any other way. Not only seamen, but boys. The term "shanghaiing" is applied simply to this course of procedure. It is something like the old common law kidnapping. They take a seaman, get him drunk, carry him aboard the ship, and ship him. The master abets

the act because he wants the man. Men are scarce in port and he must sail. There are men who thrive upon this business. Sometimes they draw all that is coming to the seaman and he gets nothing for his voyage. At other times he simply gets the premium paid for seamen by the ships themselves, and the seaman never has anything to do with it. That has happened time and time again right in this port. There should be a law imposing a penalty for that sort of thing. Great Britain has such a law. There is not any doubt in the mind of any man, in my opinion, that it is a serious offense to take a man and ship him off in that way against his will.

In a great many instances these men are green men. They know nothing about a ship. In one instance recently from this port—there were one or two cases of that kind—a man was very green on the passage out across to the Continent, and he was treated cruelly and indifferently by the officers of the ship, and the fellow jumped overboard and committed suicide.

Gentlemen, there should be legislation upon that subject. If Great Britain can have a law like that, why can not this country have such a law—a law imposing a penalty?

SHIPPED BEFORE A COMMISSIONER.

Now, the next subject I wish to present is this: Seamen in the coastwise trade should be shipped as they are going offshore. Seamen should all be shipped before a shipping commissioner. Why? That is the only protection they have.

The shipping commissioner is a United States official, under \$10,000 bond to do his duty. The sailor is bound to be treated before the commissioner as a man should be treated. When the commissioner draws the contract or the shipping articles the man knows that the voyage set forth there is the voyage he is going to make. He knows that the wages stated in the articles is the wages he is to receive for his services. But at the present time the statute only requires that men on American vessels going offshore beyond the West Indies, Newfoundland, and Mexico shall sign articles before a commissioner.

To the West Indies, as far south as Mexico, and to Newfoundland, and along the coast the master may sign his men, and all kinds of impositions are practiced upon the seamen. They are taken advantage of, and when they get to a port they are constantly in trouble. I have had their cases for years—disputes with the masters, where they have tried to rob the men of their money where they had taken them on a voyage under false pretenses. The articles are signed, but lots of seamen can not read. The seaman's nature is docile and child-like. He will sign the articles without reading them, having the greatest faith in the master, when the articles are presented for his signature. The seamen are deceived. They find they are going on a voyage on which they did not intend to go. They find eventually that they are not given the wages which they shipped for. That would all be obviated if the commissioner shipped the men.

FAILURE TO JOIN.

Another reason why the men should be shipped before the commissioner—and this is one in which the seamen are at fault—is that a

seaman frequently signs articles for a voyage and never joins the ship. That pertains only to the worthless seamen; but there are a lot of them who will sign articles and refuse to join. The vessel is detained sometimes a day, sometimes half a day, sometimes two days, to get more men; and there should be some regulation, it seems to me, enacted by law by which some way could be provided for compelling the seamen to stick to their contract. I do not mean that any penalty should be imposed upon them or that a jail sentence should be imposed against them. We are beyond that period. We are not living in that kind of a civilization. It was a happy day when the statute allowing imprisonment for desertion was abolished. But there should be some regulation by which seamen could be prohibited, for a week or two weeks, from shipping on a coastwise vessel before a commissioner, so as to compel the seaman to recognize the fact that his obligations are as sacred as the captain's.

ALLOTMENT NOTES.

Now, with reference to allotment notes: Seamen receive allotment notes on deep-water vessels. In the coastwise trade the seamen have no use for allotments—none whatever. Their sea voyages are short, and at the half-way point in their voyage, where they load and discharge cargo, the seamen are entitled under the statute to one-half their pay due at the time. So the seamen does not have any use in the coastwise trade for allotment or advance money, as it might be called in general parlance, but not exactly fitting the statute.

As long as seamen are not treated properly aboard the ship, are not protected by law, as long as they are unnoticed, no effort made to elevate them, just so long the time will be deferred for the American merchant marine to procure American youths as seamen. I remember when I was a boy that all vessels sailing out of American ports would carry their home crews the whole season through—fine men, fine seamen, signed by the ship the season through, and while the ship would be laid up in winter at the home port the men would join her next year. That thing is out of the question to-day. The seamen on our coast to-day are nearly all foreigners, or foreign-born naturalized citizens. If you wish to create a merchant marine, you must encourage the people of the nation in this direction. They must be protected. They should have comfortable quarters in the forecabin, and they should be protected in many other ways that are too numerous to suggest here.

A LOAD LINE.

In reference to the load line, I should like to say that it has been my experience and observation—and I am in contact with these ships all the time—that the American schooner loads her scuppers to the water nine times out of ten. They go undermanned, and they are consequently unseaworthy. They get into a gale and they heave and toss; they are clumsy; they are awkward; they strain; they spring a leak. The poor fellow who suffers is the seaman. The captain takes his own risk, but the seamen suffer. The seaman loses his life, or may lose it any day, and if he does not he may be out in a yawl boat for half a dozen days and experience all kinds of hardships.

Gentlemen, that should not be allowed. The vessel that carries a seaman to sea should give him all protection possible, and not only be safe, but it should give him comfort.

Those, gentlemen, are the points I wish to present, and I thank you for your attention.

Senator MARTIN. We are very much obliged to you.

STATEMENT OF R. M. LETT.

Mr. POWELL. We have with us Mr. Lett, who will take your time for two or three minutes. Mr. Lett comes from Canada.

Mr. LETT. Gentlemen, I think it is a shame to call on lawyers when there are practical men around. I know absolutely nothing about this subject except what I have gathered from history. I am a Canadian, having been born hundreds of miles inland, but if there was one thing that was instilled in me it was pride in the English merchant marine and in her navy. It thrilled me as a boy, and I believe since I have been in this country, twelve years now, I have grown to be a patriotic citizen; at any rate, as good as the other foreigners who come here.

I have often wondered why the American nation could not get a merchant marine, with men enough to man her Navy at least, and to make her respectable. I can not understand why the American nation permits herself to be corralled around by the seashore just exactly as you would put sheep in a fold, and where, if she does get out of her sea line, she does it through the good will of some other nation. I do not think it ought to be so. I do not care whether it be differential duties, admiralty or postal subsidies, I believe in having a merchant marine just to train the men for the Navy, if for no other purpose.

My friend, Mr. Upshur, says it would not pay. I do not care whether it would pay in a commercial view or not. The merchant marine ought to be raised to such an extent that it would pay and that there would be American men in American bottoms. I do not believe in an American vessel manned solely by foreigners, unless they become citizens of this country. I would be capable of going myself if I knew something about the water; but I mean a foreigner who has no interest at all in this country. I believe in the American vessel being manned by American people, by American sailors, and then that the merchant marine should be protected if necessary with a subsidy; and I, for my part, am perfectly ready to pay my share of any subsidy Congress may grant, or of aid in an other way, whether by differential duties, admiralty subvention, or postal subsidy, to build up a merchant marine, so that we will not be corralled around with a seashore as we have been up to the present time.

NOT VERY FAST VESSELS.

I do not believe we need such very speedy vessels, except those which would be developed purely by postal subventions and admiralty subventions; that is, fast vessels which could be used as scouts, and with sufficient decks so that cannon could be placed upon them in time of war.

How the freight is to be worked, I do not know. With respect to incoming vessels, it, of course, is very easy, with a duty; but as to the outward vessels, how to get our goods in our own bottoms going out, I do not know. I do not know how it is to be done. Whether it is to be done by tonnage bounties, or in what way it is to be managed, I can not tell you. I have given a great deal of thought to the subject, but I know nothing about it, except what I have read in the history of England and other maritime powers. We know England was built up by her merchant marine, and she could not get strong without it, and practically no nation can now get strong without a merchant marine and a navy; and I do not care how vast their territories are. I do not care if there were to-day another country as big as Russia she could not be powerful until she had a marine, and without a marine she could never have a navy, and without a navy she could never have the respect of the other nations of the world to the extent she ought to have it.

As I have said, as to the incoming trade there is no difficulty. With respect to cruisers, scouts, and so on there is no difficulty, because that can be accomplished by a subvention, but how we are going to manage so that our exports shall be put in American bottoms is something I can not figure out. You gentlemen will have to do so. I do not know how it can be done except by tonnage and bounties.

As to quarrels with other nations, I think we ought to deal fairly with the other nations, and if the discrimination necessary would be so great as to acquire their property we ought to go to subsidies flat. But unless the quarrel would be exceedingly bitter I would not yield one iota to any nation on the face of the earth, I care not what nation it is.

I thank you, gentlemen.

STATEMENT OF CAPT. WILLIAM G. MELVIN.

Mr. POWELL. We have with us Captain Melvin, who can give you some information, I think, as to the shipping of this port.

Senator MARTIN. We will be very glad to hear from the Captain.

Mr. MELVIN. I represent the Seaboard Transportation Company. We have a fleet of seagoing barges here, and there is not one in the fleet that cost us less than \$54,000. They are 4 years old, and there is not a more able class of vessels going to sea than they are. We have one lying here in dock, called the barge *Kennebec*, of about 3,500 tons dead weight capacity, which is second to none in the United States as a sailing vessel, well built, staunch, strong in every way.

Representative SPIGHT. Where was she built?

Mr. MELVIN. At Bath, Me., by William Rogers & Son. She is about 19 years old. We brought her here this summer and converted her into a coal-carrying barge. She is manned by 7 men. They have no sails to handle. Everything is handled by steam that can possibly be handled in that way. We have no difficulty in getting crews anywhere. In fact, I can fill the vessel to-morrow. I have, I suppose, 50 applications in my desk down there to man those vessels.

Senator MALLORY. Are they rigged with fore-and-aft sails?

Mr. MELVIN. Fore-and-aft and mutton-leg sails.

Senator MALLORY. How many masts?

Mr. MELVIN. Three.

Senator MALLORY. Bowsprit?

Mr. MELVIN. No bowsprit. That is about all I can say, so far as the barges are concerned. If there is any matter you would like to know about, I can probably answer your questions.

Senator MALLORY. Are the class of men employed on board those barges the same as the men employed on ships going to sea?

AS TO BARGE CREWS.

Mr. MELVIN. Yes; the class we employ are. Our masters are men who have been on sailing vessels for a long time. We are very particular in picking them out.

Senator MALLORY. Have you donkey engines aboard those vessels?

Mr. MELVIN. We have, and every sail and everything is hoisted by steam. Virtually there is very little done by hand.

Senator MALLORY. How many barges are towed at one time?

Mr. MELVIN. Two. We limit ours to two barges.

Representative SPIGHT. Do you think that is unsafe?

Mr. MELVIN. No, sir; I do not.

Representative SPIGHT. It has been stated here that sometimes there are as many as four barges, I believe, or three barges in one tow.

Mr. MELVIN. Yes; quite frequently. Some concerns tow three barges.

Representative SPIGHT. It has been stated also that more than two, I believe, are unsafe.

Mr. MELVIN. A man is making a very broad statement if he says that. If they are well found they are just as safe with three as with two. If they have sufficient ground tackle, sufficient sails to handle them in case of a break up, they are just as safe as if there were two.

Senator MALLORY. It has also been contended that they are unsafe to other vessels, not only inside but outside. At night the hawsers between the barges are not visible and lights are not burned.

Mr. MELVIN. Certain lights have been prescribed by our Government and we have to carry the same as any other class of vessels that are navigating, both inland and outside.

NO PERILS TO NAVIGATION.

Senator MALLORY. I should like to know your opinion with respect to the matter, as you are a man of experience. Do you think there is any danger to navigation outside arising from the towage of three barges, 200 fathoms apart, by a tugboat 200 fathoms ahead of the leading barge?

Mr. MELVIN. No, sir; not with competent men. We have more trouble with them lying at the port than at sea. A steamer sank one the other day in Providence. The trouble is all in lying at anchor in the port.

Senator MARTIN. Do you know of any abuse here in the way of overloading vessels leaving this port?

Mr. MELVIN. I observe ours; I do not others so much. I know

what ours are. In summer time we put more in them than in winter. We provide for that during the boisterous weather by taking so much cargo out and leaving it out during the winter months. Ours are perfectly seaworthy and are insured at the very lowest rate possible, and, in fact, our *Kennebec* has a side of 11 feet when loaded. I should think that that is a pretty good side out of water for any ship.

Senator MALLORY. What is her tonnage?

Mr. MELVIN. Her tonnage is about 2,000.

Senator MALLORY. Two thousand net?

Mr. MELVIN. Two thousand net. As near as I can get at it—nineteen hundred and something.

Senator MALLORY. She will carry 4,000 tons of coal?

Mr. MELVIN. Thirty-five hundred. The other barges—the built barges—in which we put 2,800 tons, are 1,500 tons.

Senator MARTIN. Is there anything else you wish to suggest?

Mr. MELVIN. No, sir.

Senator MARTIN. We are much obliged to you.

STATEMENT OF A. A. MOSS.

Mr. POWELL. I have been told that Mr. Moss will occupy your attention for a few minutes.

Senator MARTIN. We shall be glad to listen to Captain Moss.

Mr. MOSS. Mr. Chairman and gentlemen, I will not take up your time very long, because I think the ground has been thoroughly covered, and I intend to confine myself more locally than otherwise.

Mr. Chairman and members of the Merchant Marine Commission: You are here to try to find out what our people think is the best way to build up the merchant marine. I shall speak mostly locally. We have at this port the finest shipyard in America, fitted with all the latest and best machinery that can be had for building ships at the lowest possible cost, and a climate in which we can work outside twelve months in the year. This yard employs between 7,000 and 8,000 men, and has built 56 ships. Out of this number only 2 ships, the *Korea* and *Siberia*, have been built for foreign trade, and these were built by Mr. Huntington, the owner of the shipyard, for the Pacific Mail Line, in which he was interested. It is not because they can not build ships successfully, for every ship built by this company has come up to every requirement, and all of them have exceeded their contract speed from a quarter to one and a half knots, and have proven to be models of success in operation. Then why is it? There must be a cause.

NO AMERICAN AGENCY.

We find this port has no American ship agency flying the American flag. We have three foreign agencies—the Holland-American Line flying the Dutch flag, the Furness Withy Line flying the English flag, and the United States Shipping Company, which flies every flag except the American.

In the year 1901 602 ships entered and cleared our custom-house, with a total export and import of \$42,500,000, with customs duties of over \$3,000,000, and at a cost of collection of 4.2 per cent, the lowest

in America. Yet out of these 602 ships only 19 were flying the American flag. In 1902 there were 318 ships and only 13 American, with about the same amount of import and export. In 1903 there were 343 ships and only 9 American, and about 36½ million of export and import. None of these American ships crossed the ocean, and their cargoes were composed mostly of coal for South American ports.

BLAMING THE STEEL TRUST.

Now why is it that we have no American ships:

First. I believe that the steel trust are responsible to a great extent in discriminating against the American shipbuilder in the way of prices, as plates and other material made by the American steel trust are shipped to England and sold at 25 to 33 per cent less than they can be had in this country. As living is much cheaper in England than it is in this country and wages less, therefore with material, living, and wages being 33 per cent lower than in America, they have every advantage over us, especially when we consider their long experience as shipbuilders and as a commerce-carrying power.

Second. I do not believe in the free-ships doctrine as a remedy, because we have the material and every facility to build first-class ships in this country; also thousands of men who are anxious to do the work.

Third. This is not a party question. The South is as much interested as the North, East, and West. Then what will place the American ships on the high seas?

Fourth. I believe that we should have a subsidy of so much per ton on all ships of 10 knots or more engaged in foreign-carrying trade sailing under the American flag, and a differential also on duties based on the difference on the wages paid to the crews of the American and foreign ships. For illustration, say an American ship of 8,000 tons costs for crew \$1,440 per month, or \$17,000 per year for wages, while a British, German, or Norwegian ship of the same tonnage costs \$1,000 or \$900 per month, or \$12,000 or \$10,800 per year, making a difference of about \$6,000 per year—these wages are taken from statistics—against the American ship, which difference should be made up.

A WAGES SUBSIDY.

Now, it seems to me if it costs \$300,000 to build one of these freight vessels in England and \$400,000 to build the same ship in America, that the American owner should be allowed 6 per cent on the \$100,000 extra cost, or \$6,000, and 10 per cent wear and tear on same, making \$16,000, by way of subsidy, and the differential of \$6,000 paid in difference in wages for the extra cost of running the ship under the American flag, which makes a total of \$22,000 per annum per ship, to put it on a footing with our foreign neighbors.

Fifth. I believe that the mails should be paid for in addition to the subsidy and differentials, and should be given out by competitive bids, contract price to be based on speed of ships. In this way we would have fast ships, as each company would want to excel in this line for the patronage.

SHOULD REPAIR AT HOME.

Sixth. There is one point which seems to me to be overlooked in our present subsidy of the American Mail Line from New York. That is the repair work. They seem to get more repairs done on the other side than on this. I believe that a report of all repair work done on American ships in foreign countries should be made at the custom-house at home on their return, and 33 per cent of the cost of the repairs in proportion to the amount of subsidy and differential should be deducted from the amount due the ships from the Government.

When some little thing happens to the ships that carry the United States mail, they fix them up here, but it generally happens that most of the repairs are done on the other side. It seems to me that for all the overhauling and all the repairs done on American ships abroad, whether you adopt subsidies or whatever policy you adopt, there should be a deduction from the proportion allowed those ships under the American flag, inasmuch as they are paid by the Government for the extra expense that it costs to build here and to carry on the commerce under the American flag.

REPAIRING PROFITABLE.

Mr. Post, I suppose, is very much better informed than I am on this matter, but I am one of the old citizens here, and I have watched the progress and growth of this city and the shipping interest very closely. Those lines I have noticed sometimes have one ship here and sometimes two in a year; sometimes they do not have any. Yet those ships have to be overhauled very often. If any little breakdown happens which they can repair here and manage to get to the other side, or if they can fix her up without going to a shipyard, they wait until they get to the other side. That should be remedied. I believe it is one of the most important things that should be looked into and protected so far as the workmen are concerned on this side, and so far as the yards are concerned on this side, because it is repair work that makes the shipyards of this country or any other country pay.

Representative SPIGHT. Why do they do it—because they get it done more cheaply abroad?

Mr. Moss. Because they get it done for about 33 or 50 per cent less than in this country, and it is always convenient to get it done where you can get it done for the least money. A man who wants a suit of clothes always looks for the best suit of clothes he can get for the least money, and those people are in business to make money. It seems to me when the United States Government is protecting those people by way of a large subsidy, given to carry the mails, they should protect the home people by compelling those people to get their work done here.

ALL ELSE PROTECTED.

Some think, and specially those who live on the mountains and the plains, that it is not right to have a subsidy or differential to encourage American shipping. Why not? If it is just that they have a tariff for protection, or for revenue only, on steel, woolen goods, and

other manufactured products of 33 per cent or more, for the running expenses of the Government and for the protection of the farmers and manufacturers, why is it not right to protect the shipowner, sailors, and shipyards of this country?

The duties through this port alone amount to over \$3,000,000 per year. Why not put it on the same par with steel and allow 33 per cent of this amount to protect the ships that bring the revenues here?

Thirty 12-knot ships of 8,000 tons each, making one trip per month, will make 360 trips per year, or more than is now required to bring in this freight. Figuring these ships at \$22,000 each per year for subsidy and differential, as I have figured, is only \$660,000, or 22 per cent of the revenue they bring. Then, as you have put on a high tariff on all material that ships are made of and on all other goods produced by farmers or manufacturers in the interior or mountains, we ask you in the name of justice to take care of our interests also by putting us on a footing to build up the shipping trade for America without bankrupting the men who undertake the enterprise.

REMARKS OF MR. A. L. POWELL.

MR. POWELL. Do you wish to hear anyone else? I do not know of anyone present who desires to be heard.

Senator MARTIN. There are a few minutes to spare.

MR. POWELL. If there is no one else to be heard, I should like to state to the Commission that our citizens have been very much gratified because of the fact that Newport News was designated as one of the points for a hearing, and we understand this is the only place that you have been to between Baltimore and Brunswick, Ga.

Senator MARTIN. That is right.

MR. POWELL. We wish to thank you for the interest you have shown in our port especially.

CLOSING REMARKS OF SENATOR MARTIN.

Senator MARTIN. On behalf of the other members of the Commission and for myself, I wish to thank the chairman of the committee, Mr. Powell, and the members of the Chamber of Commerce of this city and the people generally who have shown so much interest in this matter and who have extended to us so many courtesies during our stay here.

I feel a special pride in the showing Newport News has made, and in the intelligent and able views which have been presented for the aid of the Commission in the very difficult labors that they have before them. I assure you that your assistance is appreciated by all of the members of the Commission.

Thereupon (at 4 o'clock and 55 minutes p. m.) the subcommission adjourned.

HEARINGS AT WASHINGTON.

WASHINGTON, D. C., *Friday, November 25, 1904.*

The Commission met at 10 o'clock a. m.

Present: Senators Gallinger (chairman), Lodge, Martin, and Mallory, and Representatives Grosvenor, Minor, and Spight.

The CHAIRMAN. On the 28th day of April last there was approved by the President the statute creating a commission to be known as the Merchant Marine Commission, the personnel of which was to be five Senators, to be appointed by the President pro tempore of the Senate, and five members of the House of Representatives, to be appointed by the Speaker of the House. That Commission took up its work and has held hearings on the North Atlantic coast, the Great Lakes, Puget Sound and the Pacific coast, and the South Atlantic and Gulf coasts.

We are about concluding our work so far as the hearings are concerned, and we thought it important that gentlemen representing the Navy Department, the Post-Office Department, and the Department of Commerce and Labor should be asked to come here this morning for the purpose of presenting their views on certain phases of our inquiry. It has been deemed important that the gentlemen from the Navy Department should particularly inform us as to their opinion of the desirability of a merchant marine as auxiliary to the Navy in supplying transports, supply ships, colliers, auxiliary cruisers, etc., and that the gentlemen representing the Post-Office Department should speak as to the postal subvention plan, which is now in operation to some extent and which it has been thought by some members of the Commission at least, and perhaps all of them, might be enlarged to advantage.

In the hearing this morning the Commission will be pleased to have the gentlemen present express themselves on any phase of this interesting and very complex subject.

Congressman Parker, of New Jersey, is present and desires to be heard, on perhaps some general points in connection with the merchant marine, and if it is agreeable to the gentlemen present Congressman Parker will be heard first.

STATEMENT OF HON. RICHARD WAYNE PARKER, REPRESENTATIVE IN CONGRESS FROM THE SEVENTH DISTRICT OF NEW JERSEY.

Representative PARKER. Mr. Chairman and gentlemen, the present need, in my judgment, is of a system that will induce Americans to go to sea.

They will not do so now because no shipowner can afford to employ them when he can get foreigners so much cheaper.

But no system will be complete that will not see that the ships which shall carry our flag shall not only be built and owned, but officered and manned by Americans. No system will be profitable which shall not make it pay the shipowner to hire Americans.

Any full relief must deal with the personnel. It must provide for seamen as well as ships.

Let American ships be manned by American sailors, enlisted, enrolled, and trained in our Navy and ready for any emergency. The nation can well afford to pay to the shipowner the additional cost of their employment, and if that additional cost be paid it would pay our merchants to own and operate ships.

DIRECT PROTECTION.

The trouble is the difference in wages. A subsidy that is based on that difference would be direct protection not only to the shipowner but to the seaman and to the Navy, to which they would be a reserve.

Americans do not go to sea. In the report of the Commissioner of Navigation for 1903 Mr. Chamberlain says:

"All American vessels on salt water which go out of sight of land for any time during the year would be fully manned by 50,000 men, including masters."

More than half the sailors on these ships are Americans—perhaps about 30,000 men in the merchant service, whereas the Navy requires some 34,000 to man our ships fully, and boys have to be drawn from the interior.

It is easy to see why Americans do not go to sea. In the old times a ship's success depended upon her crew. To be successful at all she had to be fully manned with brave men, ready and able to unload and load their vessel on any coast, to strip her to the girt lines, to beach her to repair her, sometimes practically to rebuild her, ready to meet pirates, privateers, and savage tribes, and eager to go wherever profit could be found, from the tropics to the poles. In such employment a vessel fully manned with brave Americans interested in the venture made more money than another manned with hirelings. No wonder that our boys then went to sea.

FOREIGNERS CHEAPER.

Now, all is changed. Big liners ply even the remote Pacific on fixed ocean ways. They are even driving out the tramp. It is pure business to hire the cheapest men and no bounties or subsidies on tonnage or speed, or by way of postal subvention, will bring the American into the crew while the foreigner can be had cheaper.

This is not theory, but experience. Great Britain has maintained and increased her merchant marine by postal and admiralty aids of every kind, but their crews are less and less British crews.

I have here, by the kindness of the Naval Intelligence Office, the report of the Naval Reserves Committee of Great Britain, 1903. This committee states (page 7):

"8. Since 1859 the requirements of the navy have outgrown the power of the mercantile marine to supply them. The former have increased; the number of British seamen employed in the latter has decreased."

Seventy-three thousand one hundred and four in 1859 (see 2, page 7), to 122,500 in 1902-3 (see 3, same page).

On the other hand (p. 8, par. 9), "in 1857 there were 96,914 petty officers and sailors, British subjects, not including Lascars, employed in the mercantile marine of the United Kingdom. In 1875 it was estimated that there were 82,000. In 1889 the estimated numbers had fallen to 60,709, whilst in 1901 there were only 44,290."

DECREASE OF BRITISH SEAMEN.

A careful table covering the years from 1875 to 1901 is contained on page 75 of the same report, and the figures are startling. The sail

tonnage of merchant vessels registered under the merchant shipping acts had gone down by half, but the steam tonnage had nearly or quite quadrupled, so that the total tonnage had grown 60 per cent, from nearly 6,000,000 (5,785,000) tons in 1875 to over 9,000,000 (9,388,176) tons in 1901. The total crew had likewise increased 10 per cent, from 244,500 to 225,080, while on the contrary the British crew had fallen in number from 182,000 men to 151,380, the balance of the crew being made up by the increase of foreigners and Lascars. Foreigners had increased from 20,500 men to 37,170, and Lascars had increased from 2,000 men to 37,430. Thus over 52,000 foreigners and Lascars, mostly Lascars, had been added to the British merchant marine in this short period, and over 30,000 less British seamen were in that marine.

The figures are still more startling if you disregard engineers, firemen, etc., and go to the ranks of pure seamen. Officers, 38,000 in 1875, had become 26,030 in 1901; petty officers, 10,000, had become 7,630; sailors, 72,000, had become 36,660; the apprentices, 14,500, had become 5,170. Including officers, petty officers, sailors, boys, and apprentices, the number of British seamen proper had fallen from 134,500 in 1875 to 76,390 in 1901, or nearly half. It is perfectly plain that the influx of Lascars and Chinese and people of all other races who can go cheaply into the British service is destroying the British merchant marine just as it is destroying the American merchant marine.

WHAT INCENTIVE?

Now the question is how to meet this condition; how to give Americans an incentive to go to sea. It is idle to try to do it by statutory requirements. An apprentice system is good, but it is another burden on our ships, unless they are compensated for it. Statutes may require that a certain proportion of every crew shall be Americans, but in this case the vessel will employ the very cheapest Americans they can get, and even this raises the wages on the ship, so that every other sailor who comes aboard, nondescript or Chinese, insists upon getting the same wages, and the expenses of our ships are increased without getting Americans after all.

We must institute an American system as to the manning of our ships. Little aid can be had from the experience of other nations. Norway, Italy, Greece, and Spain have no difficulty because they have the cheapest sailors in the world. England has made a failure of her attempt to encourage the Britain sailor by a naval reserve system. That system is a great success as to officers. Captains and mates are allowed to go temporarily into the navy, where they are examined and certified as to fitness, and obtain the glory of being attached to the naval service and the standing of having passed their examination. That system has thus created a roll of captains and officers in the merchant marine of whom any nation should be proud. We need a like system in America.

FAILED AS TO SAILORS.

But that system has failed as to sailors. The naval reserve pay is niggardly, about \$15 a year for ordinary seamen, and about double that for engineers, while twenty-eight days of annual training is asked from every man. Shipowners will not employ men who must leave

them for this training, and, as a rule, therefore, sailors do not belong to the naval reserve, which has to be recruited partially from long-shoremen, fishermen, and others who are not really seamen. The whole system has failed to encourage the sailor.

We can learn nothing by the experience of Germany and France, which with other continental countries encourage their marine by making service therein with a short naval training constitute an exemption from military obligations, the equivalent of a large bounty to the seafaring man. Every man ashore has to serve his years in the actives and a longer course of years in the reserves of the army, while the man who is at sea after a certain amount of naval training can have his wages in his ordinary profession and be exempt from military service. This keeps the ranks of seamen full, while England has failed, in that in twenty-five years her seamen at sea have fallen off by one-half.

A SAILOR RESERVE BILL.

There seems to be no remedy for the fact that Americans do not go to sea except to see that it will pay them to do so. It will not get Americans to go to sea to give postal subsidies or tonnage subsidies or freight subsidies or speed subsidies. It will not prevent the shipowner's hiring the cheapest labor he can get. But Americans will go to sea if they can have good wages as well as a chance of graded service with promotion. In that regard we may follow the foreign naval reserve systems, avoiding their mistakes.

To that end I drafted a sailor-reserve act to establish a naval volunteer force of seamen—H. R. 5079 of this Congress. I explained its features as a tentative measure in remarks submitted April 22, 1904, on the discussion of the act for the appointment of this Commission. It has been favorably considered by the Navy Department, which only feels that the naval estimates should not bear the whole expense. The proposition is that the United States shall pay the ship so much each month for every man employed who shall be enlisted and enrolled and shall have served his necessary training in the United States Naval Reserve, and that thereby the shipowner shall receive not only compensation for the difference in cost of employing Americans, but also a very considerable bounty to the ship. If that ship employ 200 men at an allowance of \$20 a month for each man, it would amount to nearly \$50,000 a year. It would be less in smaller ships. If the allowance shall be increased for speed and proper construction of the vessel, it might be even greater than this sum. No enormous amount, however, is required. If 25,000 Americans be enlisted in such a naval sailor reserve, it would at that rate amount to only \$5,000,000 in a year.

NAVAL VOLUNTEERS.

But the proposition, stated briefly is that the Secretary of the Navy may form a force of not over 30,000 men, to be called naval volunteers—a sailor reserve, enlisted for five years. Facilities are to be provided by which such volunteers as appear and report—they are not forced to—shall be instructed and trained, and exercised on shore or on board ship, at such times and places and under the command of such officers as the Secretary thinks fit, and they may be also

examined and certified as to their fitness as officers of the force and of merchant vessels.

The President may call them into active service in time of war or of emergency. They are entitled to pay when they are in service. The Secretary of the Navy may make rules for their organization, and he may discharge anyone at any time. He may organize them into classes, and then comes the encouragement to the Americans to join:

"That in order to encourage the merchant marine and the employment of such naval volunteers therein there shall be paid to the owners or charterers of any vessel of the United States which shall be engaged in foreign trade or in the deep-sea fisheries, for every naval volunteer actually employed and serving on such vessel during every deep-sea fishing voyage or foreign trading voyage, the monthly sums hereinafter provided for, for every month of the duration of such voyage: *Provided, however*, That no such payment shall be made unless such naval volunteer shall have been in actual training, as mentioned in section three, for a period equal to as many months as the years or fractions of a year that he has been enrolled and enlisted as such naval volunteer: *And provided further*, That he has been certified as fit for the office or position held by him on such merchant or fishing vessel.

"The Secretary of the Navy shall fix the rates of pay aforesaid for various grades, which rates shall not be above twenty dollars a month for any grade up to petty officers, nor above thirty dollars a month for engineers or mates, nor above forty dollars a month for captain, and which rates may be graded according to the character and size of the vessel, the kind of voyage, and the grade of service as may be deemed best by the Secretary of the Navy."

AUXILIARY CRUISERS.

And then follows a provision to encourage vessels of high speed and sufficient strength:

"That whenever such foreign voyage shall be in a steam vessel and her time between ports on such voyage shall represent a speed of over ten knots an hour on the shortest courses between such ports, then the pay in the last section mentioned shall be increased in proportion as the speed represented by such time bears to ten knots: *Provided*, That such vessel shall have been built or strengthened and kept in condition as may be fixed by naval regulations and to the satisfaction of the Secretary of the Navy: *Provided further*, That such vessel shall have entered into bond or agreement, satisfactory to such Secretary, that such vessel may be taken by the United States at an appraisement of its fair value whenever the President shall declare an emergency that renders such taking advisable."

Such a system of bounty for employing Americans and for their organization as a naval reserve is not exclusive of any other arrangement for postal, naval, or freight subsidy or discriminating duties. There are difficulties as to bounties upon freight, tonnage, and speed. Some of us remember ancient railroad charters which provided minimum rates, which are often four or five times as much as are now actually charged by the railroads. A tonnage subsidy may be reasonable when made and unreasonable afterwards. High speeds become usual speeds. The United States once granted a postal subsidy for a

fast mail, to be run at extra speed, and the railroads now have several equally fast trains upon the road and still get their subsidy. There is prevalent objection, and honest objection, to the granting of bounties on tonnage or speed, because speed increases and tonnage rates decrease. There can be no objection whatever to bountying men, and paying the difference between foreign and American wages, and that difference would be by no means inconsiderable as an encouragement to American shipping. But it can be added to any other system.

USEFUL MEN IN NEED.

At any rate this plan is likely to give us men available in time of need. It will enable the Government to know where they are, for if it pay the vessel owner on production of a certificate of enrollment of the man, with inspection to see that it is the same man, the Government will know where your man is and can get him at any time. Meanwhile he will be proud that he can go to a vessel owner and say that he is a naval volunteer, and can claim larger wages than others, because the ship will get something for employing him.

This plan also provides for grades and classes of service and examinations and training for promotion into the higher grades. The nation can well afford to pay for the employment of American captains in American ships. Every such captain in time of war is worth everything to us. Sailors can be promptly trained, but not American captains, and it is a grief that the race is almost going out of existence with the decay of the sailing vessel. It is the key to American supremacy upon the sea that Americans be there. And we must encourage the American officer, give him his turn of duty in the war vessel, his certificate of fitness, his uniform as a sailor reserve captain, his fraternity as a brother of the sea.

The training of the Naval Reserve has been a matter of some difficulty. A few weeks each year are hard for the man to find and for the Government to employ.

A YEAR IN THE NAVY.

I have talked with a great many naval officers, one of whom made a rather appropriate suggestion—that perhaps a year's work in the Navy might be the qualification for the reserve. We might avoid many desertions in the Navy if the first enlistment were for one year, with the privilege of enlisting afterwards for five years, or of going into the sailor reserve, so that they can be called back into the Navy in case of emergency. This would avoid the difficulties of short annual training.

There was a romance of the sea in ancient days. That romance is gone, and the American no longer cares to go there, because he is not paid properly for its hardships. Meanwhile the military nations of the continent of Europe are able to keep up their sea power and put their men on the sea, bountying them by exemption from military service, while America and England are falling behind in the race. We must resume our heritage as heirs of the sea king. We must get our boys on the free ocean, not by conscription, as a continental tyrannical power may do, but by extra allowance to the ships for every sailor that is available for national defense. I hope that some such plan will be embodied in the recommendation which may be made by this Commission.

THE FRENCH FISHERMEN.

Mr. Chairman, I believe I have done. I have taken too much time.

Senator LODGE. In alluding to the foreign systems you did not speak of the French. Is it not true that the French give fishing licenses only to men who have served a certain time in the navy?

Representative PARKER. Yes, sir.

Senator LODGE. They have to serve first in the navy, and then they get their licenses as fishermen.

Representative PARKER. Yes, sir; a short service.

Senator LODGE. A short service.

Representative PARKER. It is different from the military service. They do not have to serve on shore.

Senator LODGE. All those Breton fishermen have to serve a short time or some time in the navy before they can get their licenses as fishermen?

Representative PARKER. Yes, sir.

Senator LODGE. So a man has to spend a little time in the navy before he can be licensed. I did not know how far it had been extended.

Representative PARKER. It is extended to everybody who follows the sea in any way for a profession, and he is, as I say, excused from onerous military duty and allowed to follow the sea freely. No wonder they do follow the sea.

Senator LODGE. They get a certain amount of work out of all the men who want to be fishermen or sailors?

A BOUNTY TO THE SHIP.

Representative PARKER. Yes, sir; we should do it the other way by a bounty to the ship which will let them pay the men for going to sea. I have copies of the remarks I submitted on this subject in the House. It was not a speech. I will hand them to the clerk.

The CHAIRMAN. We shall be pleased if you will leave us some copies.

Representative PARKER. I have tried not to repeat what I said there. This matter of figures is entirely new.

I have to return this pamphlet to the Naval Intelligence Office, unless the Commission would desire to have it left possibly for the quotations.

The CHAIRMAN. I think if you would leave it, unless we can get another copy, it may be desirable to have a portion of it copied.

Secretary MORTON. I think probably the chief intelligence officer can get another copy of it.

The CHAIRMAN. Thank you. We will see that it is returned.

Representative PARKER. I will so report, then.

The bill referred to by Mr. Parker is as follows:

A BILL (H. R. 5079) for the establishment of a naval volunteer force of seamen and for the government of the same.

Whereas it is expedient that there should be a volunteer force of seamen for service in the Navy in time of emergency, that they should be duly trained, and that the foreign trade of the United States should be encouraged, as well as the employment of such seamen in such foreign trade: Therefore,

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That it shall be lawful for the Secretary of the Navy to raise and keep up a number of men not exceeding thirty thousand, to be called "naval volunteers," such men to be enlisted from among seafaring men and others who may be deemed suitable for service.

SEC. 2. That such volunteers shall be enlisted for five years.

SEC. 3. That the Secretary of the Navy shall provide facilities whereby such volunteers as may appear and report shall be instructed, trained, and exercised on shore or on board any ship, at such times and places and under the command of such officers as the said Secretary may think fit, and whereby such volunteers may also be examined and certified as to their fitness as officers of such force and of merchant vessels.

SEC. 4. That it shall be lawful for the President in case of emergency communicated to Congress, or proclaimed, if Congress be not sitting, to order that any or all of such volunteers shall be called into actual service; and upon such order and such notice thereof as may be prescribed by navy regulation, every naval volunteer who shall not appear and enter into actual service shall be subject to the penalties of desertion.

SEC. 5. That such naval volunteers when in actual service, or when training as aforesaid, shall be entitled to pay and allowances for actual service in the Navy, and shall be subject to the discipline of the Navy, as fully as if regularly enlisted therein, and shall be organized, armed, and uniformed as may be provided from time to time by regulation.

The Secretary of the Navy may prescribe rules and regulations for their organization and training, and may at any time discharge any such naval volunteer, and may organize them into classes, and make rules and regulations as to the time, places, and manner of their service.

SEC. 6. That in order to encourage the merchant marine and the employment of such naval volunteers therein there shall be paid to the owners or charterers of any vessel of the United States which shall be engaged in foreign trade or in the deep-sea fisheries, for every naval volunteer actually employed and serving on such vessel during every deep-sea fishing voyage or foreign trading voyage, the monthly sums hereinafter provided for, for every month of the duration of such voyage: *Provided, however,* That no such payment shall be made unless such naval volunteer shall have been in actual training, as mentioned in section 3, for a period equal to as many months as the years or fractions of a year that he has been enrolled and enlisted as such naval volunteer: *And provided further,* That he has been certified as fit for the office or position held by him on such merchant or fishing vessel.

The Secretary of the Navy shall fix the rates of pay aforesaid for various grades, which rates shall not be above twenty dollars a month for any grade up to petty officers, nor above thirty dollars a month for engineers or mates, nor above forty dollars a month for captain, and which rates may be graded according to the character and size of the vessel, the kind of voyage, and the grade of service, as may be deemed best by the Secretary of the Navy.

SEC. 7. That whenever such foreign voyage shall be in a steam vessel and her time between ports on such voyage shall represent a speed of over ten knots an hour on the shortest courses between such ports, then the pay in the last section mentioned shall be increased in propor-

tion as the speed represented by such time bears to ten knots: *Provided*, That such vessel shall have been built or strengthened and kept in condition as may be fixed by naval regulations and to the satisfaction of the Secretary of the Navy: *Provided further*, That such vessels shall have entered into bond or agreement, satisfactory to such Secretary, that such vessel may be taken by the United States at an appraisement of its fair value whenever the President shall declare an emergency that renders such taking advisable.

STATEMENT OF HON. PAUL MORTON, SECRETARY OF THE NAVY.

The CHAIRMAN. We are honored this morning by the presence of the Secretary of the Navy, whose attendance we very highly appreciate, and if it is agreeable to Secretary Morton the Commission will be pleased to hear from him.

Secretary MORTON. Mr. Chairman and gentlemen, I did not know until day before yesterday that I would be called upon to appear before you, and I now come more as a private individual than as Secretary of the Navy, and what I say will be more individual than official. We have here to-day Admiral Luce, Admiral Harrington, Captain Mahan, Captain Usher, and other officers of the Navy, who understand this matter a great deal better than I do and who will be very glad indeed to give you their views on the subject. I have had so much to learn and so much to do since I became Secretary of the Navy that I have not yet had an opportunity to discuss the question of the merchant marine with the officers of the Navy. Yesterday I jotted down some of my ideas in regard to the matter which I should like to present.

A QUESTION OF COMPETITION.

To my mind, the relation of the Government to our merchant marine in the foreign trade is simply a question of competition. There is competition between individuals, between corporations, between cities, and between nations, and the one great element in the contest for the trade of the world now going on between England, Germany, France, and the United States is shipping or the command of the seas. In times of war this is to be secured only by an efficient Navy; in times of peace it can only be obtained by an efficient modern merchant marine. We need and must have both to supplement each other.

It is not a question in the transportation business what your ethics are or what your ideas are as to how cheaply freight can be carried, or what inducements are necessary in order to promote trade. It is your competitors' rates that you have to consider. You must meet them or your patrons will have to retire from the trade and you will be out of business.

It is not a question as to what Americans want to do in the building up of a merchant marine. There is, to my mind, nothing academic about it. In order to build up a big American shipping interest you will be obliged to meet competition of other nations. You will be forced in some way to recognize the mail contracts, the subsidies, the bonuses, and the premiums of Germany and of England and of other governments, and you will have to give the American owner of sea-going craft and the American sailor an equality in all respects; this to be arrived at by the actual measure of what your competition is.

OF VALUE TO THE NAVY.

I think that if something of this kind can be devised, all ships built should conform in a degree to specifications and plans approved by the Navy Department, so that in case of war we could avail ourselves of them. I am not sure but that in some way the men should also have a naval training. Of that, I am not so sure.

To day the merchant marine service of England, Germany, and France, is of tremendous importance as auxiliaries to the navies of each of those countries. We now have nothing of that kind, save our coastwise ships, to depend upon.

Transportation companies develop business. Many a desert has been turned into a garden through the efforts of American railroads. Many sections of the country formerly regarded as utterly valueless have been, with the proper transportation facilities, transformed into sections of wonderful production. The railroads of the country are the commercial scouts of the interior. Transportation is the advance agent of commerce.

SCOUTS OF COMMERCE.

American ships, under our own flag, manned by American officers and men, should be our scouts of commerce all over the world. It is said that necessity is the mother of invention, and there is much truth in it. It has been necessary for American railroads to promote the traffic of the country they served in order to earn fixed charges and pay dividends. All it required was intelligent effort. No other country of the earth has better railroads or as good service, as low rates, or can begin to compare in mileage or tonnage with us. We have literally triumphed in transportation by land over all other nations.

What we have done on land we can, if given a fair show, do on the sea. We probably are the world's largest producer of tonnage. We should send it forth to the markets of the world in our own ships. Why pay freight to other people than ourselves? Why let foreigners have the profits of shipping or of the insurance? Why not devise a way to keep the profits at home?

I believe there is a sentiment among the thinking people of the country for a revival of our merchant marine in foreign commerce. I believe it is greatly to their interest there should be. I am sure plenty of capital can be found for it, provided it is fairly dealt with.

REGULAR OCEAN LINES.

There should be regular lines of steamers sailing from the United States to all the principal ports of the world—regular lines with regular sailings and stable rates.

The merchants and manufacturers of this country can not build up a foreign trade and retain it unless they can depend on reliable transportation.

These are my views more as a transportation man than as Secretary of the Navy, but, as I say, these officers of the Navy are here, and they will be very glad indeed to give you the benefit of any thought they may have on the subject.

The CHAIRMAN. I infer, Mr. Secretary, that, as a man possessing

intimate knowledge of the transportation question, your view is that if we can equalize conditions on the sea as between our country and foreign countries we can compete with any country?

Secretary MORTON. I have not any doubt of it.

The CHAIRMAN. But without that equalization we are handicapped.

Secretary MORTON. With that handicap it is going to be that much harder to do it. Now, if I can be excused, I should like to go, because I have an engagement I made prior to learning of the meeting of the Commission.

The CHAIRMAN. Certainly. We are very much obliged to you for coming here.

The Commission will now be pleased to hear from Admiral Luce, if it is agreeable to him.

Secretary MORTON. Mr. Chairman, there is a letter which Admiral Luce wrote me on this question which I should like to send to the Commission. I thought we had it here, and that Admiral Luce was going to present it. I will transmit it to the Commission.

The CHAIRMAN. Thank you.

STATEMENT OF REAR-ADMIRAL S. B. LUCE, UNITED STATES NAVY, RETIRED.

Admiral LUCE. Mr. Chairman, shall I send a copy of this paper to the Commission or shall I read it?

The CHAIRMAN. If it is agreeable to you the Commission will be pleased to have you read it.

Admiral LUCE. I shall be very glad to read it. I will first read the letter of transmittal:

U. S. NAVAL WAR COLLEGE,
Newport, R. I., November 17, 1904.

SIR: At a conference of flag-officers held at this college on the 24th of last August the subject of naval reserves came up for discussion. This naturally led to the consideration of the mercantile marine in its relations to the Navy. As a result it was voted by those present, including Rear-Admirals Higginson, Clarke, Coghlan, Wise, Harrington, Chester, and Manney, of the active list, and the undersigned, of the retired list, that the rehabilitation of our merchant service as a purely military question was of the highest importance to the country and a subject demanding immediate and earnest consideration; and, further, that this aspect of the question might properly be presented to the Merchant Marine Commission, of which Senator Gallinger is chairman, should the honorable Secretary of the Navy deem such a course expedient. Taking the sense of the conference, I beg leave to submit the inclosed letter, addressed to the chairman of the Merchant Marine Commission, for such disposition as the Department may think proper. I may add that I alone am responsible for the views contained in the letter.

Very respectfully, your obedient servant,

S. B. LUCE,
Rear-Admiral, U. S. Navy, Retired.

Hon. PAUL MORTON,
Secretary of the Navy, Navy Department, Washington, D. C.

I addressed a letter to you, Mr. Chairman, and sent it to the Secretary of the Navy, in the hope that he would put his indorsement on it and in that way it would reach the Commission.

The indorsements on Rear-Admiral Luce's letter are as follows:

[First indorsement.]

NAVAL WAR COLLEGE,
Newport, R. I., November 17, 1904.

Subject: Rear Admiral S. B. Luce, U. S. Navy, transmits to the Secretary of the Navy a letter addressed to Senator Gallinger, chairman of the Mercantile Marine Commission, on the subject of the rehabilitation of the merchant marine as a military necessity.

1. Respectfully forwarded to the Secretary of the Navy through the Bureau of Navigation, at the request of Admiral Luce.

2. The rehabilitation of the merchant marine is a question of the utmost gravity—first, for the provision of a reserve personnel, and second, for the provision of fast merchant vessels to do duty as scouts for the fleet or commerce destroyers.

3. The first of these objects can best be attained by commercial methods stimulating the building of vessels under the American flag, either by commercial subsidy or by the removal of the tariff on material, or both, as Congress may deem wise.

4. The second object, that of provision of fast merchant vessels of 21 knots or over, can probably only be attained by a subsidy purely military in its character, since vessels of the class desired are not profitable commercially. A notable instance of such a subsidy for a direct military purpose is the contract entered into by the British Government in August, 1904, with the Cunard Company, by which the company is to augment its fleet by two steamships of the largest size with a speed of 24 knots or more per hour, the contract also providing for the use of other vessels of the fleet by the admiralty, as may be desired.

5. The conference of officers at the War College during the summer of 1904, discussing the question of how best to provide vessels for the service of scouting and information, was of the opinion that such work could be performed satisfactorily by very fast merchant vessels, and that such vessels ought to be obtained by a purely military subsidy as a matter of economy, since the expense of the military subsidy would be very greatly less than the cost of maintenance of vessels of the Navy especially built and kept in commission for the purpose. Fast vessels are so uneconomical and so little adapted to ordinary lucrative commercial work that no purely commercial subsidy will accomplish the purpose.

6. The president of the War College, then, represents not only his individual opinion, but that of a large body of active sea officers in stating that it is a matter of urgent importance to stimulate the growth of commercial marine, to provide a reserve personnel, and to procure the building of merchant vessels adaptable to military uses by payments which can only be regarded as military expenditures.

C. S. SPERRY,
Captain, U. S. Navy, President.

[Second indorsement.]

DEPARTMENT OF THE NAVY,
BUREAU OF NAVIGATION,
November 25, 1904.

Rear-Admiral S. B. Luce, U. S. Navy, transmits to Department a letter addressed to Senator Gallinger, chairman of the Mercantile Marine Commission, on the subject of the rehabilitation of the merchant marine as a military necessity.

Respectfully forwarded to the Navy Department.

The Bureau of Navigation considers the increase of the merchant marine of this country of vital importance to the Navy. The demands of war will call for large numbers of men and ships to perform the auxiliary service of the fleet far beyond the possibilities of supply from the merchant marine. Inasmuch as it is desirable that the merchant marine shall supply auxiliaries for use in time of war, the Bureau considers the necessity for Government action looking to the increase of the merchant marine as of pressing importance.

G. A. CONVERSE, *Chief of Bureau.*

[Third indorsement.]

NAVY DEPARTMENT,
November 25, 1904.

Subject: Rear-Admiral Luce transmits to Department a letter addressed to the chairman of the Mercantile Marine Commission on the subject of the rehabilitation of the merchant marine as a military necessity.

Respectfully transmitted to the Hon. J. H. Gallinger, chairman of the Merchant-Marine Commission, United States Senate.

PAUL MORTON, *Secretary.*

Admiral LUCE. With your permission I will now read the letter addressed to the Commission regarding this matter simply from a naval standpoint, and no other.

"U. S. NAVAL WAR COLLEGE,
"NEWPORT, R. I., *November 17, 1904.*

"Hon. J. H. GALLINGER,

Chairman of the Mercantile Marine Commission.

"SENATOR: Referring to the polite invitation of Mr. Winthrop L. Marvin, secretary of your Commission, to state what in my judgment could and should be done by national legislation to increase the number of ships and seamen of our mercantile marine, I beg leave to say that the questions at issue are so momentous and the interests involved so conflicting that I hesitate to discuss them at present as business propositions.

"But as the restoration of our carrying trade is a matter which deeply concerns the Navy, I venture to submit a few remarks designed to show how it may be regarded from a naval standpoint.

"To the country at large, as well as to the Navy in particular, the rehabilitation of our mercantile marine is a question of the highest military importance. The reciprocal relations which exist between

the military and the mercantile marine has long been recognized. The former insures immunity from molestation of ocean-borne commerce, and in time of war finds there its best reserves. A navy may be said to be the offspring of foreign trade. In all history the peoples who have been the most enterprising navigators have as a consequence become the foremost of naval powers.

COMMERCE AND THE NAVY.

"Our own history furnishes a conspicuous example of an extensive ocean commerce giving birth to a navy. We were, first of all, a commercial people. In our early days as a nation our merchant ships were to be seen in numbers on every sea. They were noted for their superior build, fine qualities, and the skill with which they were navigated. They were at once the source of our national wealth and pride, and made the flag of the newly born nation familiar to every clime.

"Peaceful as our people were, the country found itself forced, against much and bitter partisan opposition, to build a navy for the protection of its foreign trade. And when, gradually, the Navy came into existence, it was from the merchant service it was called upon to protect that it found its best recruits. Some of our most celebrated officers of the Revolutionary war and of the war of 1812—officers who achieved distinction in battle and assisted so materially in laying the foundations of our naval renown—received their early training in the mercantile marine.

"When the civil war demanded a sudden and great expansion of the Navy, it was to the mercantile marine that we turned for making up the personnel. In 1860 the number of seamen allowed the Navy by law was 7,600. In 1864 that number had been increased to 51,500. The number of seamen enlisted in the Navy from March 4, 1861, to May 1, 1865, was 118,044.

In respect to additional officers there were admitted in the Navy during the war about 7,500 of all grades, by far the greater part coming from the merchant service. Many were excellent seamen and service on board vessels of war soon made up for lack of previous naval training.

EFFICIENT VOLUNTEERS.

"The records of the volunteer officers are creditable in the highest degree, showing that the merchant service of that day was not inferior, as a school of seamen, to what it was in 1812. Many promotions were made for gallantry in battle and for faithful services. At the close of the war 4,500 officers were honorably discharged with the thanks of the Navy Department. After a rigid examination 64 passed into the regular service as part of the permanent Naval Establishment. Many of those equally well qualified for admission to the Regular Navy preferred to return to civil life. They had entered the Volunteer Navy from motives of patriotism; and when the country no longer needed their services they willingly returned to their accustomed vocations.

"It must be borne in mind, however, that in 1860, or just preceding the civil war, with a population of 31,443,322, our foreign-going tonnage ran up to 2,496,894 tons, a close second to that of England's, while to-day, with a population in round numbers of 80,000,000, it is only about 1,706,294 tons.

AMERICA'S WEAKNESS.

"According to recent statistics there are only three 'billion-dollar countries,' considered from the standpoint of exportation of domestic products; and America heads the list, the others being the United Kingdom and Germany. But while America leads the world in trade it must not be forgotten that of the exportation of domestic products a very small percentage is carried in American bottoms, the great bulk going to foreign ships. The money paid the carriers goes to enrich countries with which we may some day be at war. Thus we are indirectly aiding the navies of those countries and their naval reserves at the expense of our own.

"The war with Spain,' says Mr. Winthrop L. Marvin, in the American Merchant Marine, 'proved that the merchant marine of the United States in 1898 was not sufficient to provide the indispensable naval reserve for even a brief conflict with a third-rate (fourth-rate) power.'

"This is quite true. What, then, may we depend upon for naval reserves in the event of another war, when our opponent on the ocean may be something more than a fourth-rate or third-rate power, indeed may be one of those very naval powers whose reserves we have for years past been aiding to build up?

VALUE OF THE SAILING VESSEL.

"Although the great mass of the carrying trade is done by steamers, yet the sailing ship is by no means extinct."

I am a strong advocate for keeping up, if possible, the sailing vessel as distinct from the steamer.

"It has been shown that there are certain classes of cargo that can be carried better and with more profit by sailing vessels than by steamers, and statistics show that there is a gradual revival in the sailing-ship building."

These are my own—entirely my own—individual views. I do not represent anybody else. I do not think I have much following in this:

"It is desirable from the naval point of view that this species of industry should be encouraged by our navigation laws, for it is unquestionably true that it is that class of vessel that we must look to for sailors. Steamers produce seamen, it is true—men who acquire the sea habit—but not sailors in the strict sense of the word—men who do not only have the sea habit, but the well-known characteristics of the sailor—his skill in meeting all the vicissitudes of life at sea, his contempt for danger, his self-reliance under difficulties, his adaptability to all sorts and conditions of circumstances. Men seasoned in that school soon adapt themselves to man-of-war life."

Take the stewards on the trans-Atlantic lines. They have the sea habit, but they are not sailors.

STILL A NEED FOR SAILORS.

Representative GROSVENOR. Will it interrupt you if I ask you a question?

Admiral LUCE. Not at all.

Representative GROSVENOR. Our war vessels are no longer sailing vessels. They, too, are steam vessels.

Admiral LUCE. Yes.

Representative GROSVENOR. Why do they need sailors if there is a difference between the sailor and the seamen that you speak of?

Admiral LUCE. There are a great many occasions on board those ships where a sailor comes in handy—for instance, in the manning of boats.

Representative GROSVENOR. That is true also of our steam merchant marine.

Admiral LUCE. In the merchant marine, as I understand it, a vessel ties up at a wharf. She casts off her lines and steams out and goes across the ocean and goes on a regular beaten track, and when she gets on the other side she ties up there.

Representative GROSVENOR. She does not anchor.

Admiral LUCE. There is very little for a deck hand to do. In the Navy we have expeditions in boats. We have a number of things for which the sailor even on a monitor comes in handy. During the civil war I sailed on board a monitor sometimes, and I found a vast difference between the regular sailor and the man who has the sea habit. Cooks are aboard and they have the sea habit, but they are not sailors. There are lots of times when the sailor comes in handy, because he can turn himself to anything. That is the point I want to make—the difference between the man who has the sea habit and the man who is a sailor, who has something else besides the sea habit.

THE BEST MAN AFLOAT.

Representative MINOR. The steamer develops a man who depends upon the engine and the power.

Admiral LUCE. Yes.

Representative MINOR. A sailor educated aboard a sailing vessel knows the weather and by its symptoms learns to forecast, etc.

Admiral LUCE. Yes, sir.

Representative MINOR. And he learns how to splice a rope and to man a boat.

Admiral LUCE. Yes, sir.

Representative MINOR. On our Great Lakes the sailing vessel has gone and the sailor has gone with it.

Admiral LUCE. Yes.

Representative MINOR. A great many of our first-class steam barges, carrying six to ten thousand tons of freight, hardly have enough experienced sailors aboard to launch and handle a boat. That is the difference.

Admiral LUCE. Yes, sir; we find that true in the Navy, and it was true in the Spanish war. Men were passed for sailors who, to use an expression employed out West, were tenderfeet. They could not stand the weather.

Representative MINOR. Certainly.

Admiral LUCE. A great many are new men who can not take the wheel. A hundred things turn up where the sailor comes in handy, and the landsman does not fill the bill, I do not care what sea habit he has.

A LESSON FROM JAPAN.

To continue:

“Not only should such an industry be encouraged, but our navigation laws should require that all sailing ships engaged in foreign trade should carry a certain number of boys, proportioned to their tonnage.

"Our bank and other deep-water fisheries produce hardy seamen and should be encouraged by every possible means. In this connection attention is invited to an extract from a letter to the New York Evening Post of August 20, 1904, from Dr. Hugh M. Smith, deputy fish commissioner to Japan.

"Says Doctor Smith:

"In view of recent developments in Manchuria, Korea, and along the seas, it is proper to mention that the prowess of Japan is due in no small degree to the skill, bravery, and loyalty of her fishermen. When volunteers were called for to take vessels into Port Arthur for the purpose of blocking the channel, those who insisted most strongly on being allowed to go to almost certain death were the hardy fishermen, and in every naval achievement of the present war the fishermen in the navy have played a prominent part."

"Speaking of the Russian Baltic fleet, on the other hand, a foreign correspondent very justly remarks"—and this comes in, in a measure, as an answer to your question, Mr. Grosvenor:

RUSSIANS NOT SAILORS.

"The units of the ships' companies are brave, but as a rule are wanting in the high-sea experience and the elasticity that enable the seamen of the American and British navies to adapt themselves to new and difficult responsibilities as they arise. Nor do the temperaments and traditions of the composite races that man the ships serve to correct these deficiencies. The service is compulsory, not voluntary, and a good portion of the crews is drawn from the interior. The merchant marine is relatively too unimportant to provide a proper nucleus of seamen, and the consequence is that many of the men serving on board ship have no sea aptitude, and are found afloat only because they have drawn an unlucky number in the conscription."

"The latest statistics at hand show that 'all American vessels on salt water which go out of sight of land for any time during the year would be fully manned by 50,000 men, including masters.'"

This is from the same report of the Bureau of Navigation, Department of Commerce, which was read here a little while ago:

"It is shown also that the crews of square-rigged vessels, the class that produce sailors, amount to only 5,287 men."

That is a very small proportion.

"The board of trade (England) returns for 1902 show a total of 253,540 persons employed in the home and foreign trade.

"In the event of war it may be asked what reserves can be furnished our Navy by the mercantile marine as the latter exists to-day under the operation of our navigation laws? The supply must surely prove totally inadequate.

"Intimately connected with the subject is that of higher education."

Now, here is another branch of the subject I should like to bring before the Commission:

AMERICAN SCHOOL-SHIPS.

"In the interests of the personnel of our mercantile marine in the first instance, but ultimately for the benefit of the whole country, I beg leave to call attention to the good work now being accomplished

by the State school-ships *Enterprise*, at Boston, the *St. Mary's*, at New York, and the *Saratoga*, at Philadelphia. These nautical schools were established under the wise provision made by Congress 'for the instruction of American youths in navigation, seamanship, marine engineering, and all matters pertaining to the construction, equipment, and sailing of vessels.' (See marine-school act, June 20, 1874.) The reports from each school-ship have been very encouraging. Would it not be well on the part of the Government, looking to future possibilities, to encourage still further this form of technical education?"

CERTIFICATES OF COMPETENCY.

There is just one other branch connected with this matter to which I should like to call attention, and that is as to the provision in the English navigation laws requiring every officer in the mercantile marine to hold a certificate of competency. I read the other day in the paper, and I suppose it is true, that some lady, who had been to sea, had been granted a master's certificate. We saw in the *General Slocum* disaster how lax all those laws are with respect to the inspection of steam vessels. That all belongs to the navigation laws. There should be a certificate of competency required for every master and every chief engineer, and in short every officer in the mercantile marine; and that certificate of competency ought not to be given in a lax way, but it ought to be given by Government officers and local men—what they call in England local board of trade officials—who would insist upon the men knowing their business. Look at the thousands of millions of money and the thousands of lives every year entrusted to those men.

Representative MINOR. Who should grant these certificates, according to your notion?

Admiral LUCE. Some body in every large city equivalent to the local board of trade in England. There are the insurance people who are interested.

Representative MINOR. You would go beyond the local inspectors?

Admiral LUCE. Yes. The insurance men should have one representative. The Government is interested in all this. In all seaport towns there is what you call a hydrographic naval officer. He should be one member of the board. He is a graduate of the Naval Academy. He knows one end of a ship from another. Then the insurance people should be represented and the local board of trade. A board should be composed of three men who would be in earnest and would not grant certificates to ladies or to incompetent people.

MORE SCHOOL-SHIPS.

If you demand a certain amount of knowledge from these people it will start up these schools. There are only three school ships now. There ought to be more. There ought to be one in San Francisco, one in Baltimore. Of course, the military force does not require them, but there is no reason why those school ships should not be multiplied, and if you had a requirement of a certificate of competency, school ships would come inevitably.

Take the *St. Mary's*, in New York. A number of graduates are coming back there, as they find they do not know all the navigation they want to know. I was aboard the *St. Mary's* a few days ago.

The captain said that the graduates go to sea and find they do not know as much about navigation as they would like, and they come back, and they are going to have a night school without charge. There is a nautical school in New York, conducted by Captain Patterson, but the men have to pay to go there. Some of the men can not afford it; but if you had connected with the *St. Mary's* a night school, where there is absolutely no charge, it would be a very great advantage. Then have your local board examine those men, and you will have men ready to pass the examination and get a certificate. It is nothing more than applying to the mercantile marine the higher education which prevails in the whole country. That is all there is about it.

THE MERCHANT RESERVE.

To resume:

"At the first note of war there would be a great demand for ships, as well as for men. In addition to the established line of battle, the conditions of naval warfare of to-day call for a comparatively large auxiliary fleet, such as scouts, transports, store-ships, supply-vessels, cable-cutting vessels, repair-ships, hospital-ships, etc. These may be drawn from the merchant service. During the civil war some 418 vessels of various sorts were purchased for the Navy.

"It has been tersely said by one very good authority, in reference to the blockade of the Southern ports, that more than one-half of the ships, four-fifths of the officers, and five-sixths of the men who performed this vital work came directly from the merchant marine. (Marvin, p. 339). The valuable services rendered by the vessels drawn from the same source during the Spanish war and hastily converted into men-of-war is of too recent a date to need more than a passing notice.

"Ninety-seven merchantmen were purchased and converted into auxiliary cruisers, scouts, gunboats, colliers, etc. The *St. Paul*, *St. Louis*, the *New York* and *Paris* (the latter renamed *Harvard* and *Yale*), made capital scouts.

"During the civil war the number of vessels of all descriptions bought or chartered by the Government for the use of the Army, as reported at the end of the war, amounted to 783, with an aggregate tonnage of 240,499 tons. If to this be added the 418 bought for the Navy, we should have a total of 1,201 vessels of all descriptions drawn from the merchant service for Government use.

"During the Spanish war the Government bought for the use of the Army 16 vessels and chartered 77. These, with the 97 for the Navy, made a total of 190 vessels, great and small, furnished by the mercantile marine, for a war lasting but four months.

"The mercantile marine may, not inaptly, be called the militia of the sea."

THE MILITIA OF THE SEA.

The use of that word there is probably a little strained.

"It enjoys this notable distinction, however, when called to the colors, as the military phrase has it, the sailor joins the national forces trained in a great measure for his work. He comes to the front a seasoned campaigner; whereas the militiaman has to be broken in. It has been well said that while volunteers are learning the wisdom of

prudence by hard experience the regulars are practicing it. War finds the personnel of the mercantile marine with an acquired sea habit and already inured to the confinement and privations of life on board ship. In the war of 1812 large bodies of troops went into battle ignorant of the most elementary rules of military tactics. The first draft of militia in the civil war was practically worthless. The same story was repeated in the war with Spain; whereas in each case the naval volunteer, trained to sea life, readily fell into his new duties.

"This statement is fully borne out by the history of our private armed vessels during the Revolutionary war and the war of 1812. Our privateersmen, made up entirely from the merchant service, by preying upon the enemy's commerce, his source of wealth and almost his sole means of subsistence, contributed very materially to bring about a cessation of hostilities. Their career was marked by many a hard-fought action. They captured many more prizes than were made by the entire Navy, and of far more money value. Privateering may be out of date, but American enterprise and American aptitude for foreign trade are not. It needs only a healthy stimulant to quicken their latent powers, not for militant ends surely, but to pursue the peaceful paths of commerce. Will Congress supply the stimulant?"

JAPAN'S SUBSIDIES.

"The astute Japanese were not slow in recognizing the great military value of the mercantile marine. A shrewd observer of events in the Far East has told us that the secret of Japan's success lies, very largely, in the extreme care which was taken in adapting the national defensive machinery to the end in view, while a considerable sum was devoted to subsidies to encourage the mercantile marine, which has furnished transports for the army.

"It seems to be generally conceded that the revival of our shipping interests is wholly impracticable without Government aid to give it a start. Unfortunately, whatever form this aid may take, whether by means of subsidies, discriminating duties, or bounties, the mere proposition of Government protection would receive little favor at the hands of those who would regard it as a party measure. 'The people,' it would be objected, 'should not be taxed to support any one industry.'"

I dislike to go into that subject before a commission of this kind. General Hancock said the tariff was a local issue. But this is of national importance. It is not confined to geographical lines or to party politics, from the Navy view, and that is the standpoint the Navy takes.

But if the question be raised above the plane of party politics, and outside of geographical lines, and be considered as one of great national importance, affecting the whole country, it would surely appeal to the patriotism of all. Viewed from the naval standpoint, the question becomes at once one of national policy.

"In brief, I venture to submit for consideration the military aspect of the questions now to be determined by your honorable Commission.

"Very respectfully, your obedient servant,

"S. B. LUCE,
"Rear-Admiral, U. S. Navy, Retired."

The CHAIRMAN. We are very much obliged to you, Admiral.

STATEMENT OF CAPT. ALFRED THAYER MAHAN, U. S. NAVY, RETIRED.

The CHAIRMAN. We have with us this morning Captain Mahan, and I will ask him to honor the Commission with some observations.

Captain MAHAN. Mr. Chairman and gentlemen of the Commission, everything connected with the economical and industrial features of a merchant marine concerns the work of the Commission, but it is a matter as to which I am not at all in a position to speak.

In listening to Mr. Parker's address I do not know whether I understood him correctly, but I did not understand him to lay stress upon the necessity of developing the carrying trade of the country as well as the personnel. It may be that he took that for granted and that the personnel was his issue.

Of course it is obvious, *a priori*, to everybody that the greater the number of people existing in a particular country who are accustomed to the water in one shape or another and the more intimately they are connected with it, as the old-fashioned seaman or sailor was, the larger the reserve that that country will have and the greater the development possible to its navy. That is what I call the obvious view of the matter. It is scarcely necessary to enlarge upon that. It is like any other occupation in life. The larger the number of people interested in it and the greater their practical knowledge of it the easier expansion comes to that particular industry if there is any call for such an expansion to take place.

NAVIGATION LAWS OF ENGLAND.

But in addition to that which is obvious and might be assumed beforehand, we have very strong historical testimony. It has fallen in my way in the last few months to go to some extent into the question of the old English navigation laws; and in the first place it is to be remarked that after a very short time, if not in their very beginning, the navigation laws of Great Britain were regarded as a military matter, and only incidentally a commercial matter.

It may not be generally known—I suppose it scarcely should be—that when the navigation system of England went into operation some two hundred and fifty years ago, England was in the same plight we ourselves are in now; that is, although she was an island and had every inducement to become a great maritime nation, yet more than half of the carrying trade of Great Britain was done by foreigners; and that is the reason why she resorted to the navigation system—or the navigation laws.

The navigation act was passed for that very reason. They found that their carrying trade had gone away from them; and of course if they had not ships they necessarily did not have seamen, or if they did have seamen those seamen were in foreign employ and consequently were not at the disposal of the Government at the time the Government needed them.

A GREAT PROTECTIVE MEASURE.

From that condition the navigation act took its issue; and, in my judgment, from following the question historically, it was really an

immense success. It was a great protective measure. I do not speak as a protectionist, because I am not one, but it was a great protective measure for the development of the transportation trade and facilities of Great Britain; but coupled with that there is one provision upon which Mr. Parker was enlarging before you, that not only should the ships be English, but the seamen should be English as well.

I think there can be very little doubt, from following the development of that system through one hundred and fifty or more years—it lasted really for two hundred—that the effect was to develop the carrying trade of the nation, to largely develop their resources of seamen, and that to that, largely—chiefly—is due the fact that Great Britain attained to that supremacy of the seas, which, for a long time historically she is known to have held.

NURSING THE CARRYING TRADE.

I mention that, although it is a very old story now, as it seems to me it is strictly applicable to us at the present time, not as regards the particular legislation, the particular methods, that England adopted at that time, but as to the fact that it was a system of nursing and of developing a particular British industry—the carrying trade. They followed it out, although they knew it at some times and in some ways injured another kindred industry, which was that of commerce. That actually their commerce suffered by reason of the assistance they rendered the carrying trade, that it actually lost to a certain extent, they all conceded. As a matter of commercial exchange the country lost, but they were willing to undergo loss in order to build up this one particular industry, the carrying trade, which was fortified by the requirement that not only the ships, but that a certain percentage of the seamen, a very large proportion—three-fourths was the number—should be native British subjects, and this they did avowedly that they might have at easy command a strong reserve available for the navy in case of war. I do not know really that there is anything for me to add to that, but I may give an apt quotation from the correspondence of John Adams when envoy to Great Britain in 1785 and seeking to obtain concessions to American ships: “Every consideration has been repeatedly urged to no effect. Seamen, the navy, and power to strike an awful blow to their enemies at sea at the first outbreak of war are the ideas which prevail above all others.”

A RESERVE FOR THE NAVY.

As I say, on the face of things it seems reasonable to suppose that the larger the number of Americans who are engaged in seafaring pursuits the greater will be the reserve for the Navy, and that in order to have a large number of Americans so engaged you must also have a very large American shipping, which, in some way or another, and that is for the Commission to decide, is to be encouraged to come into existence and to compete with the other industries of the country, which at present it seems unable to do.

One of the great reasons why our shipping industry has declined is because of the large competition which inland industries have offered

for the employment of capital. But that is a question for the Commission.

There is only one thing I should like to say in addition, and that is a bit of a warning which we should regard. In such a development, if it should be decided upon, as the development of reserves, as the development of a plan upon which we may count, from which we may expect something, we must be on our guard not to expect too much. One of the great troubles with all reserves is that people look to them as such and such a number, and they think they are going to realize the whole of that number, whereas as business men you gentlemen know that you rarely realize all you expect in any undertaking.

VALUE OF SEAMEN IMMENSE.

The value of them undoubtedly would be immense. How large I do not know. In Great Britain at the most flourishing period of the navigation acts they had practically 50,000 skilled seamen reserves, on whom they could call for the enlargement of the navy. But the warning I wanted to offer is that I would not like to see anything adopted which would seem to militate against the necessity of maintaining a large regular naval force, as the nucleus to which the reserves can go. It is not quite as true in these days as in the old days that a seaman in the merchant service is immediately available for service on naval shipboard; but a seaman coming from the merchant service, with the habit of the sea and accustomed to its ways, can be broken in with very great rapidity, not as rapidly as once, but still with considerable rapidity, provided you have a large trained regular naval service, such as you have in the Regular Army.

I think that should be kept in view. Otherwise any question of reserves will disappoint you, and you will expect more from them than you ought to. This is an important qualification; but for large available reserves the one way to command them is to develop your foreign shipping trade, and after that to reserve it in some manner or other to American seamen.

AN ECONOMIC QUESTION.

Representative GROSVENOR. You said, as I understood you, that it appeared that England in her foreign trade was injured by the increase of her shipping. How did that come about?

Captain MAHAN. I can not tell you, because that is somewhat of an economic question. It would be more accurate to say that the laws enacted to increase the shipping often conflicted with the immediate interests of commerce. I am throwing myself upon the pamphlets of the time, written by men who argued the question as to how far they should surrender portions of the English carrying trade to us.

Representative GROSVENOR. May it not have been that they desired our trade, but were willing to yield it to our ships in order to get our market for their manufactured goods, and would not that condition now be found not to exist, inasmuch as we ourselves have become now the greatest manufacturing nation?

Captain MAHAN. They wanted our trade—that is, they wanted our custom.

WOULD NOT GIVE UP THE CARRYING.

Representative GROSVENOR. They wanted us to buy from them.

Captain MAHAN. But they refused to give up their carrying trade to us even to obtain that.

Representative GROSVENOR. But you said they did in some form; that they injured their trade in doing so.

Captain MAHAN. No; I did not.

Representative GROSVENOR. I so understood you.

Captain MAHAN. I said they maintained their carrying trade even to the injury of their commerce. In this particular case the question at issue was whether they would allow the carrying trade between the West Indian Islands and the United States to pass into the hands of Americans. The West Indian planters said their interests would suffer, and they undoubtedly did suffer, if they had to receive their American products, upon which they were dependent—food, lumber, and one thing and another—by British ships, to the exclusion of American ships, because American ships were running very much cheaper and the freights were lower; and there was also the feeling of irritation on the part of the Americans.

Representative GROSVENOR. I can see how that might have been the fact.

Captain MAHAN. But notwithstanding that, the English refused to give up the carrying trade to the Americans and persisted in doing it themselves.

BUILT UP ENGLAND'S TRADE.

Senator LODGE. Do you not think the effect of the English navigation laws in the long run was to build up England's carrying trade, and, building up the carrying trade, to build up commerce?

Captain MAHAN. Yes, sir; my personal opinion is that it was. I am only citing the arguments of the economists at that time. A particular question would come up, and it would be said, "This will close up that market to us." The English statesmen replied, "We must keep the carrying trade."

Senator LODGE. In the long run they got the commerce back.

Captain MAHAN. Undoubtedly. As one man said, "If the merchants have the ships they will seek out employment for them."

Representative GROSVENOR. You would agree, then, that a ship becomes a sort of commercial traveler for whatever country it sails from?

Captain MAHAN. That it does what?

A COMMERCIAL SCOUT.

Representative GROSVENOR. That it becomes a commercial scout, such as the Secretary of the Navy spoke of, a sort of commercial traveler. To illustrate, it takes an American cargo and goes to South America, for instance. You admit that an American ship is a better agent to seek a market there for us than a foreign ship would be?

Captain MAHAN. That is an economic question. I am not going into that. I say only that the English persisted in having their carrying done by British ships, manned by British seamen, even though they lost on the exchange.

Representative GROSVENOR. I did not doubt the historical statement you made.

STATEMENT OF REAR-ADMIRAL P. F. HARRINGTON, U. S. NAVY.

The CHAIRMAN. Admiral Harrington will be heard next if he will favor the Commission with his views.

Admiral HARRINGTON. Mr. Chairman and gentlemen of the Commission, I am informed that a letter which I addressed to Senator Martin a week or two ago has been submitted to the Commission. In that letter I referred to the mutual relations of the Navy and merchant marine, and it will be unnecessary for me to enlarge upon that point.

Some of the topics to which I intended to refer have been covered by the gentlemen who have preceded me and I shall, therefore, alter my line of statement, and instead of reading a communication which I had prepared very hurriedly yesterday, and on notice received the afternoon before, I will take from it some of the topics and endeavor to explain a few points connected more or less with the subject of the relation of the Navy to the merchant marine.

For the maintenance, protection, increase, and regulation of navigation and commerce, the United States has expended and appropriates annually large sums—the cost of the light-house and buoy system, survey and charting of coast and harbors, the Life-Saving Service, the Revenue-Marine Service, improvements of rivers and harbors, supervising inspection of ships, the shipping commissioner system, a marine-hospital system, the consular system, and the Navy, although, of course, the Navy has a function of coast defense, which is a chief object of its maintenance.

TWO WARS FOR SEAMEN.

The nation has been at war twice largely in assertion or defense of principles connected with navigation and the rights of seamen. Commerce and a national merchant marine are valued by these large provisions and expenditures, and the absence of a foreign commerce under the flag is a condition of failure and humiliation. The annual river and harbor appropriations are subsidies in behalf of external commerce, which inure largely to the benefit of foreign shipping. The land grants and bonds issued or indorsed for transcontinental railroads have also benefited commerce, chiefly by the delivery into foreign bottoms of the products of the land.

The causes of the decadence of American foreign shipping may be briefly summarized:

CAUSE OF DECADENCE.

First. The substitution of steam for sails as the motive power of ships and the substitution of iron or steel for wood in their construction. In both of these events the advantages of the new methods were seized by foreign countries, while they were employed but slowly in the United States.

Second. The increased cost of shipbuilding, due to increase in cost of materials and labor.

Third. The increase in maintenance and running expenses, part of which is due to the navigation laws and to national and State restrictions, tonnage dues and their imposition more onerously than in foreign countries, compulsory pilotage, marine-hospital fees, supervising

inspection fees, shipping commissioner's fees, quarantine fees, consular fees, and local or State taxation.

Restrictions abroad have not been so great, and foreign competition has progressed in consequence. At least the system adopted has not secured an enlarged American shipping in foreign trade, while the United States ought to share the commerce of the world in proportion to its population and extent of seacoast.

Shipbuilding in steel is now universally adopted, for steel ships secure the highest classification for the longest term, carry more cargo on equal tonnage, and obtain the best insurance. Wooden ships and sails must decrease in use in competition with the greater endurance of steel vessels and more rapid and numerous voyages under steam.

Sailing vessels are now almost entirely restricted to our own coasts, and even where they make foreign voyages it has been found better to build the hulls of steel than of wood. Consequently the problem of shipbuilding that we have to deal with is restricted almost to the construction of steel ships.

NO BUILDING FOR FOREIGN TRADE.

In our country the shipyards have acquired all the machinery and all the skill known anywhere in the world. We are not behind the shipyards of the world in appliances of a money-saving character. Still we do not build ships for foreign trade.

Aside from the navigation laws restrictive upon ship owning and ship running the United States has not maintained a continuous national policy with respect to navigation. The grants of subsidies have been limited to companies in opposition to lines already subsidized by foreign countries, which promptly increased their aids. Subsidies have been in the main temporary and limited to special objects. The subsidized lines never could contend against more carefully distributed subsidies, ship-building bounties and ship-running bounties. Indeed, the subsidized lines have failed of success in competition with lines which were not subsidized, a conspicuous instance of which was the withdrawal of the Roach Line to Brazil.

NO CONTINUOUS POLICY.

I happened to be in Brazil on the arrival of the first ship of that line, the *City of Rio Janeiro*. She brought out a cargo of about 8,000 barrels of flour, a very small cargo. She carried to the United States a cargo of about 50,000 bags of coffee at a rate which produced freight money to the extent of about \$35,000. I am speaking from recollection. The rate was in the neighborhood of 70 cents a bag. Before her return trip vessels of English companies, of which one line was known as the Astronomical Line or the Lamport & Holt Line, not subsidized by the British Government, appeared at Rio and took freights of coffee, and they ran the rate down to 5 or 10 cents per bag. There was a commercial or rate war. Those ships could take coffee to the United States, wheat across to England, and a general cargo from England to Brazil. They soon ran the American line off. When the *City of Rio Janeiro* made her next trip she found she could only take coffee at a loss. In spite of the subsidy granted by the United States Government and the subsidy granted by Brazil the

ship was operated at a loss. So you may say the only profit she made was the subsidy.

In about two years the lower House of Congress was changed, and it declined to continue the subvention. The Brazilian Empire, under Emperor Dom Pedro II, withdrew its subsidy and the American line failed.

The point I am making is that our country has not had a continuous policy of subsidy or aid to shipping other than the general arrangement of navigation.

In contrast with that we find the countries abroad—England, France, Germany—having a continuous policy, a policy that is meant to last until the object is obtained.

LOOKING TO OUR RIVALS.

The controlling principle in the composition and construction of the American Navy is determined by the constitution of foreign fleets. If a possible antagonist possesses and continues to build battle ships, armored cruisers, torpedo boats, and submarines, we must have similar armaments, class for class, though better if possible. We can not go forth with an arrow to meet a man with a gun. We must be at least equal in armor and in guns, to give fair ground for competition of courage and skill.

So in a commercial rivalry we must abandon means which have failed and seek new implements and systems which will meet the measures of our competitors. The plans they have used with success may be improved and employed by the United States.

It is desired to have an American merchant marine carrying a proportional share of the products of the world to and from our shores. The shipyards, outside of their work for the coastwise trade, are but adjuncts or means toward the desired object. It has been stated before this Commission that there is no shipbuilding in this country at present for the foreign trade. I have recently visited a great private shipyard employing thousands of men who are engaged almost wholly in constructing vessels for the United States Government. There is not in sight adequate work for that company outside of Government work. And the same is true of nearly all the other shipyards in the country.

ALL GOVERNMENT SHIPS.

The shipyard I refer to is that of the Newport News Shipbuilding Company. They are employing about 7,500 men. We have about 3,000 men employed in the Norfolk Navy-Yard. They have six Government ships building at Newport News, with a tonnage amounting to about 80,000 tons. They have practically nothing else in their yard, and they have five sets of building ways standing there idle. The *Minnesota* is occupying the sixth set of ways, and she will be launched in a month or two.

The CHAIRMAN. You say that is true of almost every other shipyard in the country. The Commission has visited almost every shipyard in the country and found that to be the universal condition. We have found no exception to that observation.

Admiral HARRINGTON. I think that the shipbuilder, so far as building for the foreign service is concerned, has no interest in the ques-

tion at present. If a hundred ships of foreign construction were admitted to American registry and restricted to foreign trade, American shipyards would lose nothing by the transaction, and there would be some gain in repairs of such vessels. There never will be any shipbuilding until ship owning shall become profitable. Whenever there shall be a foreign trade of great proportions under our flag, home shipbuilding will be stimulated and shipbuilders will study ways and means which will enable them to compete successfully.

The excessive cost of maintenance and running expenses is due largely to the restrictions and taxes imposed by the navigation laws. No industry is more hampered and depressed by legal exactions and fees. A wise policy would relieve shipping of taxation, national and State, except, perhaps, upon net income, and of fees of all kinds; and owners, when they get the ships, might then struggle with the problem of economical running expenses.

A NATIONAL BENEFIT.

Just here it should be said that such concessions should not be regarded as for the sole benefit of the owners. Foreign commerce and its control by American shipowners touches every class and affects every interest in the country, just as do the railroads which, up to this time, have been the chief agents of material progress and development of our country. It is in the general interest that our laws should be changed so as to permit merchants to run American ships as cheaply as foreign ones are run.

The whole question may be stated in two clauses—how merchants can buy or build ships as cheap, class for class, as foreign ones, and how ships can be operated as economically. If the bounty system for construction, and the subsidy for operation shall be adopted, it will be necessary to do it generally and generously.

I take it that the question of free ships is dismissed by one consideration. You can not import ships now, even by the payment of a duty. If there were a duty which would equal the difference in the cost of ships abroad and in the United States there would not be any object on the part of the American merchant to import such a ship, because our ships here are built of better material, the steel, both shapes and plates, that goes into them being the product of mills which conform to the Navy specifications for the highest characteristics of mild carbon steel. The reason why merchants would not buy ships and put them under our flag, in case of free ships, is that they would find the operating expenses too high, and ships purchased would be run under a foreign flag. Perhaps it has been stated before the Commission that it would be an inevitable result that the ships would not be continued in service under the American flag, but would be transferred to another flag for the purpose of saving in operating expenses.

ALL AVERSE TO FREE SHIPS.

The CHAIRMAN. Upon that point I will state that the Commission has not yet found any capitalist or shipowner who said he would be willing to take foreign ships if he could purchase them without any restriction and operate them under our existing laws.

Admiral HARRINGTON. Now in regard to the other cure, that of discriminating duties, it seems to be inexpedient. I have no doubt

that a well-devised system on that principle would result in our securing cargoes one way, but whether Congress would be willing to go into the conflicts which would result from the adoption of that principle is very doubtful.

It seems to come down to the question of subsidies or bounties. The bounty for construction, as in France, and the subsidy for running, might be very well applied in a single provision, though, of course, the arrangement for fast ships, such as would be suitable for cruisers and service in the Navy in time of war, would have to be under a separate schedule. No other division seems to be necessary so far as the subvention is concerned. It seems to come right down to this conclusion: If the country wants a great merchant marine, it must pay for it, very much as other nations do.

The French bounty system and the recent radical British subvention for Cunard vessels point the conditions which must be met by national measures to create a foreign commerce under the American flag and a demand for ships which will eventually equalize the cost of construction and of operation at home and abroad.

THE SHIPOWNING HABIT.

We must first get the ships, and I think when we get the ships and acquire the shipowning habit, then the matters of the shipbuilders' interest and of the shipowners' interest will eventually right themselves, so that they will be able to compete with people abroad.

Among the changes of laws needed are those upon discharge of seamen and payments to them, shanghaiing, passage home of destitute seamen and payments therefor, the issue of chandlery and stores to ships foreign bound without duty or out of bond, payment for mails carried by vessels not regularly employed for that purpose, the inspection of ships, and training of their officers.

A NAVAL RESERVE.

The training of men to sea life is the most important part of their preparation for naval service. The merchant marine, shipyards, and artisans form a naval reserve. Upon the outbreak of war the number of fast steamers and sailors available from the merchant marine is a factor seriously affecting naval operations.

I need only refer to what Admiral Luce has so well told you in regard to that point.

If the belligerent is a country engaged in carrying our products, the commerce of the United States would be interrupted. In either event, we are largely dependent upon ships and sailors under our flag.

I wish to lay stress upon that idea. Whether war is declared in which we are a party or whether war be declared in which one of the belligerents is the principal carrier of our commodities, the United States is in trouble if we have not seamen under our own flag.

The bearing of this upon national prosperity and security has been the cause of careful training of men abroad.

Shortly after the Crimean war the British discovered that they were far behind the French in the preparation and training of their seamen, and they started a number of training vessels for their naval force. Each of some twelve or thirteen cities of England had its own training

ship for the merchant marine. We have in our country three or four cities that maintain a training ship for the merchant marine.

From the British navy many men and officers pass to the reserve and find employment in the merchant shipping. Great Britain has a complete system of training lads for the navy.

OUR TRAINING SYSTEM.

Until recently the training system of our Navy brought few men into the Navy for life work, and until within about five years or so ago the graduates of our training system passed back into civil life. With the new Navy the prospect of promotion from the lowest grade to that of warrant officers, and indeed that of commissioned officers, has brought the Navy into a condition where any man of intelligence and enterprise who chooses to devote himself to the Navy has before him a career of competence and of honor. The consequence is that we are receiving now from our training ships a larger proportion of the men, and the Navy is being built up from them. We have not enough. Also, a number of those men enter the merchant marine and pass examinations as quartermasters and mates, and so on, and eventually some of them rise to the higher grades. The graduates of the training ships at New York, Philadelphia, San Francisco, and Boston are highly valued in the merchant marine.

The Naval Militia of the States is effective, though limited in number and in length of training. Both classes of men will be found behind the guns in case of war. In any measures adopted for reestablishment of a merchant marine there should be provided new measures for the training of ships' crews and for the education, examination, and certification of the officers.

I should like to say, referring to the remarks of Admiral Luce, that the present system of certification, while all right and in accordance with the law, is administered with some laxity or irregularity, and our merchant officers are not all as competent as might be desired. Many of them are fine officers, as good as any in the world, and a credit to our country.

It is believed that the apprentice system of the merchant marine should be superseded by a regular training system.

In my judgment the system whereby apprentices are required to be carried on board our vessels under the postal law is a failure. We do not get from it what the law designed that we should acquire. This whole subject of the training of men, which has been referred to by Mr. Parker and by Admiral Luce, is one that does not seem to be exigent at this moment, nor will it be a matter of importance until we get the ships. As long as we have no ships we do not need any sailors.

Representative SPIGHT. May I ask you a question?

Admiral HARRINGTON. Certainly.

PREFERS A DIRECT SUBSIDY.

Representative SPIGHT. If I understood you correctly, your idea is that a direct subsidy is the better remedy for the present condition?

Admiral HARRINGTON. I do not see any other. My mind rejects the idea of free ships for the reason I stated. My judgment is adverse to the idea of discriminating duties, and there seems to me to be nothing left but a direct payment to shipowners.

Representative SPIGHT. Then may I ask you how you would apply that bounty; on what basis; on the tonnage and the rate of speed?

Admiral HARRINGTON. I think the ton-mile, the arrangement which is now adopted under the postal law, except that it must be more general. It must be, of course, upon a different grade for speed and class of vessel. Of course you can not pay, or you should not pay, to a mere ocean tramp what you would pay to a vessel of a higher class, which would be suitable for the use of the Navy in the event of war.

Representative SPIGHT. Would you limit that subsidy to steamships or would you apply it also to sailing vessels?

Admiral HARRINGTON. I think the sailing vessel is passing away. Where a sailing vessel can make one voyage the steamship will make two or three. There is no freight nowadays for sailing vessels. I do not mean to say absolutely that there is none, for, as Admiral Luce has said, there are certain classes of cargoes that can still be carried in sailing vessels to advantage and economy, more particularly in the coasting trade. But the commerce of the world is impatient of delay, and I doubt very much if sailing ships can compete much longer with steam transit.

THE NEXT BEST PLAN.

Representative SPIGHT. In the event that Congress should not see proper to adopt the direct subsidy plan, have you thought about what would be the next best plan to pursue?

Admiral HARRINGTON. That seems to me the only one.

Representative SPIGHT. The only one?

Admiral HARRINGTON. The next one in order would be a recourse to discriminating duties.

Representative SPIGHT. You think there would be advantage in the discriminating-duty policy?

Admiral HARRINGTON. I think there would be an advantage. Discriminating duties would secure a cargo one way, but of course you gentlemen have had that whole subject discussed before you and can realize what discrimination and opposition there will be in foreign countries.

Representative SPIGHT. It would secure an incoming cargo?

Admiral HARRINGTON. Yes, sir.

Representative SPIGHT. Would not the fact of the assurance that a return cargo would be obtained enable the American ship to compete successfully with the foreign ship in the outgoing cargo?

Admiral HARRINGTON. I am unable to answer that question. Undoubtedly from some countries you would secure an increase of American traffic.

Representative SPIGHT. Thank you, sir.

STATEMENT OF NATHANIEL R. USHER, COMMANDER, U. S. NAVY.

The CHAIRMAN. We shall be glad to have Captain Usher express his views on the subject.

Captain USHER. By direction of the Secretary of the Navy, I will present to the Commission, and very briefly, the views of the Navy Department on this subject.

The interest of the Navy in this subject is vital, inasmuch as the

necessity at the outbreak of war for a large number of fast merchant vessels, together with the great number of officers and men necessary to man and operate them when called into use as auxiliaries for the Navy as colliers, water boats, supply ships, refrigerator ships, distilling ships, storeships, and all of the various auxiliary service for the fleet, makes a demand which the present condition of our merchant marine can not supply. Auxiliaries must come from the merchant marine.

MILITARY PREMIUMS.

It is realized that the present opportunities for employment of capital in various channels of commercial enterprises are such that the return earned by the merchant marine does not attract investment by our citizens, and it appears that while these various channels remain open and continue to occur, it is unlikely that the merchant marine will increase without Government direction and financial support and material aid. It has also been manifest in the past that steps looking to subsidies for mail carrying and commercial purposes, the object of the subsidy being to increase the number of large and fast ships, have failed of their purpose. For this reason the Navy Department is not prepared at this time to propose a plan which looks to the encouragement of the merchant marine through subsidies for speed, mileage, or mail-carrying vessels, but is disposed to favor military premiums on ships to be built to fulfill certain naval requirements, these premiums to be purely for their naval use, it being realized that vessels so fitted are not specially likely to prove lucrative investments in the carrying trade.

Not only are vessels needed, but the officers and men to man the vessels in addition to the regular force of the Navy, which means the fleet.

A measure originating in the Navy Department, the naval reserve bill, under consideration by the present Congress, asks for a force of 20,000 men, of whom 600 shall be officers, who shall, under certain conditions, be enrolled as a naval reserve for the purpose of manning the naval auxiliaries to the fleet, which must come from the merchant service.

Representative GROSVENOR. What bill is that?

Captain USHER. It is Senate bill 2991, and was introduced by Mr. Hale on the 4th day of January of this year. The figures of the Navy Department are those which Admiral Luce has presented, and Mr. Parker also, namely, about 50,000 seafaring men; but the opinion of the Navy Department is that that number is limited purely because the present opportunities for the employment of capital in various channels of commercial enterprise are such that the returns earned by the merchant marine do not attract investment.

The CHAIRMAN. I should like to ask you if the Navy now has its full quota of men?

MEN OF THE NAVY.

Captain USHER. It has the quota up to June, and is now filling up, almost, but wants 3,000 more, making the total 34,000 men. With the ships now building and those built the call will be for about 63,000 men. Some of the ships are not in commission. There are some 31,000 men at this time. The number is gradually increasing now, and will

increase until it comes to the limit, which will be 34,000. That is the number authorized by the present law.

The CHAIRMAN. I should like to ask Captain Usher if he was correctly understood to say that the views he presented this morning are the views of the Navy Department?

Captain USHER. Yes, sir; they are. They are the views——

Senator MARTIN. I should like to know how those views were ascertained. Are they the views of the Secretary of the Navy?

Captain USHER. The Secretary of the Navy was consulted in sending them out. These are the views of the Bureau of Navigation of the Navy Department.

Senator MARTIN. Am I to understand that the chief of the Bureau of Navigation——

Captain USHER. Recommended these to the Secretary.

Senator MARTIN. What you have said here?

Captain USHER. Yes, sir.

Senator MARTIN. The views you have expressed here then are simply those of the Chief of the Bureau of Navigation?

Captain USHER. Yes, sir; that part of the Navy Department. The Secretary himself stated his views this morning.

Senator MARTIN. But, as I understand, there is no way to get the views of the Department as such except through the Secretary.

Captain USHER. Yes, sir.

Senator MARTIN. Each chief of a bureau might have his own individual views, if he was called on to express them?

Captain USHER. Yes, sir.

Senator MARTIN. So it is hardly possible that any one man can say he is giving the views of anyone but himself, unless he is delegated by the Secretary to speak for the Department?

Captain USHER. I have been sent here.

Senator MARTIN. The Bureau of Navigation has instructed you to present the views you have presented?

Captain USHER. Yes, sir. You heard what the Secretary said about his own views.

STATEMENT OF EUGENE TYLER CHAMBERLAIN, COMMISSIONER OF NAVIGATION.

The CHAIRMAN. We are fortunate this morning in having with us Mr. Chamberlain, Commissioner of Navigation, who has given great study to this question, and, if agreeable to Mr. Chamberlain, the Commission will be glad to hear from him.

Mr. CHAMBERLAIN. Mr. Chairman and gentlemen: I have prepared no formal address, but I am here to answer questions so far as I may be able to do so, if the Commission be disposed to ask them. There are a few papers which I should like to file with the Commission, if they are desired, bearing more particularly on the subject of discriminating duties, which I understand has been before your Commission.

I have taken out of the various treaties the articles which bear particularly on this matter, and unless you have them already it might perhaps be well for me to leave them with the secretary.

I have already left with your accomplished and industrious secretary, Mr. Marvin, some notes bearing on the early historical application of the policy of discrimination.

DISCRIMINATING DUTIES.

The purpose of the United States, in the earlier years of their existence, in imposing discriminating duties, was to retaliate against foreign nations which imposed discriminating duties on vessels of the United States. This purpose is clearly indicated by debates in Congress, by reports of the Secretary of State, of our envoys to Great Britain authorized to secure reciprocity, by the report of a House committee on the subject of our commercial relations, and more particularly and more fully by the message of President John Quincy Adams in 1828.

1. Thomas Jefferson, Secretary of State, in his report to President Washington in 1791, said:

“Our commerce is certainly of a character to entitle it to favor in most countries. The commodities we offer are either necessities of life, or material for manufacture, or convenient subjects of revenue; and we take in exchange either manufactures, when they have received the last finish of art and industry, or mere luxuries. Such customers may reasonably expect welcome and friendly treatment at every market—customers, too, whose demands, increasing with their wealth and population, must very shortly give full employment to the whole industry of any nation whatever, in any line of supply they may get into the habit of calling for from it. * * *

“Were the ocean, which is the common property of all, open to the industry of all, so that every person and vessel should be free to take employment wherever it could be found, the United States would certainly not set the example of appropriating to themselves exclusively any portion of the common stock of occupation. They would rely on the enterprise and activity of their citizens for a due participation of the benefits of the seafaring business, and for keeping the marine class of citizens equal to their object. But if particular nations grasp at undue shares, and more especially if they seize on the means of the United States to convert them into aliment for their own strength, and withdraw them entirely from the support of those to whom they belong, defensive and protecting measures become necessary on the part of the nation whose marine resources are thus invaded, or it will be disarmed of its defense; its productions will be at the mercy of the nation which has possessed itself exclusively of the means of carrying them, and its politics may be influenced by those who command its commerce. The carriage of our own commodities, if once established in another channel, can not be resumed at the moment we may desire. If we lose the seamen and artists whom it now occupies, we lose the present means of marine defense, and time will be requisite to raise up others when disgrace or losses shall bring home to our feelings the error of having abandoned them. The materials for maintaining our due share of navigation are ours in abundance, and as to the mode of using them we have only to adopt the principles of those who thus put us on the defensive, or others equivalent and better fitted to our circumstances.” (American State Papers, 1791, Vol. II, p. 642.)

TREATY OF 1815 WITH ENGLAND.

2. Henry Clay and Albert Gallatin, commissioners appointed to negotiate the commercial treaty with Great Britain in 1815, said: “In regard to the discriminating duties we remarked that a proposition to abolish them first came from Great Britain, and a provision to that

effect was inserted in the unratified treaty of 1806. Congress had taken up the matter at their last session, and passed an act, which we explained. We thought it desirable that they should be abolished, in order to prevent those collisions and that system of commercial warfare in which the two countries would probably be involved by an adherence to them. As an example, we mentioned the great extra duty to which, as we understood, the article of cotton was liable by the British laws when imported in foreign vessels, and which if persisted in would certainly be met by some countervailing regulations." (Annals of Congress, 1815-1816, p. 1482.)

The above statement is important as indicating that even at this period of our history the foremost statesmen recognized that discriminating duties involve a system of commercial warfare, and that retaliation is not confined to shipping, but is likely to include heavy customs penalties on our principal exports, cotton being cited in this particular case.

3. The report of the House Committee on Commerce favoring the laying of discriminating duties on vessels from France and the British colonies, made necessary to countervail the restrictive systems of Great Britain (colonies) and France, at the same time reaffirms the traditional doctrine of the United States in favor of reciprocity in shipping:

"*Resolved*, That the act concerning navigation, passed the 18th of April, 1818, and the act supplementary to the act concerning navigation, passed the 15th of May, 1820, and also the act laying tonnage duty on French vessels, passed the 15th of May, 1820, made necessary to countervail the restrictive systems of Great Britain and France, and for the protection of the navigation and commerce of the United States from injuries, are still, and, as long as those adversary systems shall continue, must be necessary to protect from injuries the same great interest, and ought not to be repealed.

"*Resolved*, That the Government of the United States, having uniformly declared and avowed its attachment to the principles of free commerce, and having, in the treaties which it has formed and agreed to with foreign nations, and in its legislative acts, adhered to them, should be the last to abandon them, and especially at a time when every just and enlightened nation is conforming its commercial policy to an accordance with those principles." (American State Papers, March 15, 1822, Vol. II, p. 646.)

HISTORICAL AMERICAN POLICY.

4. Finally, the extract from the message of President John Quincy Adams, December 2, 1828, who, in the words of Mr. Fish, "beyond any other statesman of the time in this country had the knowledge and experience, both European and American, the comprehension of thought and purpose and the moral convictions which peculiarly fitted him to lay the foundation of an American policy," sets forth in broad terms the theory on which our shipping relations with the rest of the world had been conducted from the beginning of the Government, modified from 1789 to 1815, in part by the necessity of meeting discriminations against the United States, still further modified from 1815 to 1828 to meet continuing discriminations, but since then accepted, not only by the United States, but by practically all maritime powers.

"Our commercial relations with Great Britain will deserve the serious consideration of Congress, and the exercise of a conciliatory and

forbearing spirit in the policy of both Governments. The state of them has been materially changed by the act of Congress passed at their last session, in alteration of the several acts imposing duties on imports, and by acts of more recent date of the British Parliament. The effect of the interdiction of direct trade, commenced by Great Britain and reciprocated by the United States, has been, as was to be foreseen, only to substitute different channels for an exchange of commodities indispensable to the colonies and profitable to a numerous class of our fellow-citizens. The exports, the revenue, the navigation of the United States have suffered no diminution by our exclusion from direct access to the British colonies. The colonies pay more dearly for the necessaries of life, which their government burthens with the charges of double voyages, freight, insurance, and commission, and the profits of our exports are somewhat impaired, and more injuriously transferred from one portion of our citizens to another. The resumption of this old and otherwise exploded system of colonial exclusion has not secured to the shipping interest of Great Britain the relief which, at the expense of the distant colonies and of the United States, it was expected to afford. Other measures have been resorted to more pointedly bearing upon the navigation of the United States, and which, unless modified by the construction given to the recent acts of Parliament, will be manifestly incompatible with the positive stipulations of the commercial convention existing between the countries. That convention, however, may be terminated, with twelve months' notice, at the option of either party.

"A treaty of amity, navigation, and commerce, between the United States and His Majesty the Emperor of Austria, King of Hungary and Bohemia, has been prepared for signature by the Secretary of State, and by the Baron de Lederer, instructed with full powers of the Austrian Government. Independently of the new and friendly relations which may be thus commenced with one of the most eminent and powerful nations of the earth, the occasion has been taken in it, as in other recent treaties concluded by the United States, to extend those principles of liberal intercourse and of fair reciprocity which intertwine with the exchange of commerce the principles of justice, and the feelings of mutual benevolence. *This system, first proclaimed to the world in the first commercial treaty ever concluded by the United States, that of February 6, 1778, with France, has been invariably the cherished policy of our Union. It is by treaties of commerce alone that it can be made ultimately to prevail as the established system of all civilized nations. With this principle our fathers extended the hand of friendship to every nation of the globe, and to this policy our country has ever since adhered; whatever of regulation in our laws has ever been adopted unfavorable to the interest of any foreign nation has been essentially defensive and counteracting to similar regulations of their operations against us.*

'Immediately after the close of the war of independence commissioners were appointed by the Congress of the Confederation, authorized to conclude treaties with every nation of Europe disposed to adopt them. Before the wars of the French revolution such treaties had been consummated with the United Netherlands, Sweden, and Prussia. During those wars treaties with Great Britain and Spain had been effected, and those with Russia and France renewed. In all these, some concessions to the liberal principles of intercourse proposed by the United States had been obtained; but as, in all the negotiations, they came occasionally in collision with previous internal regulations,

or exclusive and excluding compacts of monopoly, with which the other parties had been trammelled, the advances made in them toward the freedom of trade were partial and imperfect. Colonial establishments, chartered companies, and shipbuilding influence pervaded and incumbered the legislation of all the great commercial States; and the United States, in offering free trade and equal privilege to all, were compelled to acquiesce in many exceptions with each of the parties to their treaties, accommodated to their existing laws and anterior engagements.

"The colonial system by which this whole hemisphere was bound has fallen into ruins, totally abolished by revolutions, converting colonies into independent nations throughout the two American continents, excepting a portion of territory chiefly at the northern extremity of our own, and confined to the remnants of dominion retained by Great Britain over the insular archipelago, geographically the appendages of our part of the globe. With all the rest we have free trade, even with the insular colonies of all the European nations, except Great Britain. Her Government also had manifested approaches to the adoption of a free and liberal intercourse between her colonies and others nations, though by a sudden and scarcely explained revulsion the spirit of exclusion has been revived for operation upon the United States alone.

"The conclusion of our last treaty of peace with Great Britain was shortly afterwards followed by a commercial convention, placing the direct intercourse between the two countries upon a footing of more equal reciprocity than had ever before been admitted. The same principle has since been much farther extended by treaties with France, Sweden, Denmark, and Hanseatic cities, Prussia in Europe, and with the republics of Colombia and of Central America in this hemisphere. The mutual abolition of discriminating duties and charges upon the navigation and commercial intercourse between the parties is the general maxim which characterizes them all. There is reason to expect that it will at no distant period be adopted by other nations, both of Europe and America, and to hope that by its universal prevalence one of the fruitful sources of war, of commercial competition, will be extinguished." (Gales & Seaton's Register, p. 2 of Appendix to vol. 5.)

COMMERCIAL TREATIES OUR PURPOSE.

MR. CHAMBERLAIN. From what I have been able to read of the hearings as printed thus far, it seems to me that there has been on the part of some of those who testified a very considerable misapprehension of the reasons which induced the United States in the early years of the Republic to resort to this policy at all. I have just quoted expressions of Mr. Jefferson when Secretary of State; of Henry Clay, who was one of the commissioners to negotiate the treaty of 1815 with Great Britain; of Albert Gallatin, Secretary of the Treasury and of the House Committee on Commerce, as I think it was designated at that time, which had in charge the retaliatory legislation directed against France, and several others, including the message of President John Quincy Adams.

It seems to me these show quite conclusively in the minds of those who applied the policy—it was applied strictly as a retaliatory measure—that the object was to prevent other nations from discriminating against us, and the very success of discrimination as a retaliatory measure it appears to me should have considerable weight with the

Commission now. It shows that retaliation from the other side would probably be very effective, especially when one bears in mind the volume of our exports, for it is the volume rather than the value of exports that counts in looking at foreign trade from the point of view of shipping. We have a much larger exposed surface on which foreign nations can retaliate in the immense volume of our exports than the limited volume of imports to which we could apply discrimination.

Senator LODGE. Your idea, then, is that the early policy was intended to bring about these very treaties?

Mr. CHAMBERLAIN. Precisely. It resulted in doing that.

Senator LODGE. To enable us to get into a position of complete equality, and that is all.

Mr. CHAMBERLAIN. And it resulted, historically, in doing precisely that thing.

Now, furthermore, there have been statistics printed from time to time—I do not know whether they have been before the Commission—bearing on the amount of exports and imports carried by American and foreign vessels during the early years of the country, from 1789 to 1819 and 1820 and thereabouts. I have never been able to find any official basis whatever for those figures, or at least for many of them. On the contrary, a committee of the Senate in 1819 made a very thorough investigation into the whole matter of the early statistics of the Government and found that even the quantities and values of our export and import trade in a great many particulars had never been correctly stated, and as a result of that investigation by a committee of the Senate the present statistical method of the Government was established in 1821. Since 1821 everything is perfectly clear and in a consistent form, and in a reliable form in the main. Previous to 1821, by the report of a committee of your own body appointed for the purpose, the statistics in a great many respects are untrustworthy or incomplete, as indicated in the extract of the report of the Senate committee which I have left with Mr. Marvin.

B. VALUE OF STATISTICS BEFORE 1821.

The statistics upon which reliance is placed by some to show the alleged operation of discriminating duties between 1789 and 1815 are in the main untrustworthy and very incomplete. As early as 1800 the Hon. Albert Gallatin, Secretary of the Treasury, stated: "There is good reason to believe that the total difference between the actual tonnage of every description and the tonnage returned in the statement as such was not less than 200,000 tons on the last day of the year 1800—that is to say, instead of the 972,000 tons exhibited in this statement, the United States did not possess over 770,000 tons." (State Papers, vol. 1, p. 494.)

Partial efforts to secure correct returns were made from time to time, and in 1818 the Treasury accounts were carefully revised and corrected. Referring to the correction and giving the following statement of tonnage of the United States registered for foreign trade,

Year.	Tons.	Year.	Tons.
1816	800, 759	1819	612, 930
1817	809, 724	1820	619, 047
1818	606, 088		

the Register of the Treasury, Joseph Nourse, in his report dated February 27, 1822, says of the year 1818: "The decrease of tonnage in this year arises principally from the registered tonnage having been corrected in 1818 by striking off all the vessels the registers of which were granted prior to the year 1815 and which were supposed by the collectors to have been lost at sea, captured," etc. (State Papers, Vol. II, p. 648.)

Yet the incorrect figures from 1800 down to 1818 have been used by those not informed of this fact as proof of the rapid increase of our registered marine under discriminating duties, while the decrease of 200,000 tons, effected in 1818 to correct the books, has been charged as a result of the reciprocity treaty negotiated in 1815 by Clay, Gallatin, and Adams.

So incomplete and misleading had our statistics become that in 1819 a committee of the Senate was appointed to devise a complete and accurate system of statistical accounts of the foreign commerce of the United States. Upon this report (American State Papers, Commerce and Navigation, Vol. II, pp. 391-403) was based the system of Treasury statistics on commerce and navigation in use since 1821. This report establishes the following facts:

First. *Exports*.—Up to 1821 there were no statistics to show what exports were carried in American and what in foreign vessels. The committee reported: "We have no statement of the amount or national character of the tonnage departing which is considered as that employed in taking away exports. * * * We should know how much of our own tonnage is now employed with these countries (Great Britain, the Netherlands, Sweden, Prussia, Hamburg, and Bremen), and how much of their tonnage now passes through our ports. These facts are not known; without them we can not estimate the effects of the system of equal duties between ourselves and those countries, nor can we compare the effects of this system with the effects of the system of discriminating duties."

Thus, while the Treasury statistics, as examined by the committee of the Senate, showed that up to 1819 it was impossible to ascertain what amount of our exports was carried in American and in foreign bottoms, tables have been devised in recent years, resting on no competent authorities, purporting to give the per cent of exports carried annually in American and foreign vessels from 1789 to 1820, and fluctuations in these percentages are made a matter of comment. It is submitted that such figures concerning our export trade, however devised, are condemned by the reports of the Treasury, and of Congress itself, as untrustworthy. The Senate committee in 1819 appropriately concluded: "It may be better to have no official statements of our foreign commerce than those which are in any great degree defective or erroneous."

Second. *Imports*.—"Goods free from duty have never been comprised in the statements of imports in any manner whatever," said the Senate committee in 1819. * * * "The statements of the Treasury, accordingly, present all articles subject to specific duties with accuracy in respect to their kinds and qualities. But the official statements present no valuation whatever of any of the articles subject to specific duties. * * * The imports subject to ad valorem duties are presented in a different form. * * * As many columns are stated as

there are rates of ad valorem duties, and under each column the aggregate value of all the imports paying the same rate of duty and nothing else is stated. * * * More than one-third of all the merchandise imported into the United States consists of articles subject to specific duties. The whole of this great mass is presented without any statement of its value."

These extracts from the report of the committee show that there were no statistics up to 1819 giving the full value of our imports, yet tables have been devised in recent years, resting on no competent authority, purporting to show the percentage of imports annually carried in American vessels from 1789 to 1820, and fluctuations in these percentages are made the basis for conclusions in favor of discriminating duties on historical and statistical grounds. Adam Seybert, the American statistician, in 1817 made an estimate of the total valuation of our imports for several years previous to 1817, making a careful investigation of prices current of articles subject to specific duties, and these estimates are generally accepted as the only ones now obtainable on the valuation of imports. He did not undertake to estimate the percentage of imports carried in American and foreign vessels.

The generally untrustworthy nature of the early figures upon which reliance is placed by some to support the policy of discriminating duties has already been indicated. There are, however, certain statistics in the American State Papers, Commerce and Navigation, Volumes I, II, which are of some value, concerning the tonnage of American and foreign vessels entering the United States. Up to 1821 there are no statistics showing the clearances of American and foreign vessels separately for any number of years.

The preparation of the statistics of entries in the foreign trade was necessary, as tonnage tax was imposed on American and foreign vessels, and customs officers were compelled, in levying the tax, to ascertain the tonnage and report it to the Treasury. The table below is taken from Treasury reports found in the two volumes above referred to, the page being given in each instance:

Tonnage entered.

Calendar year.	American tons.	Page.	Per cent.	Foreign tons.	Page.	Per cent.
1789	123, 949	1-250	53	110, 465	1-250	47
1790	354, 767	1-389	59	250, 746	1-389	41
1791	903, 662	1-389	60	240, 548	1-389	40
1792	414, 679	1-389	63	244, 278	1-389	37
1793	447, 754	1-389	73	163, 566	1-389	27
1794	525, 649	1-389	86	82, 974	1-389	14
1795	580, 277	1-389	91	56, 832	1-389	9
1796	675, 046	1-388	94	46, 846	1-388	6
1797	608, 078	1-499	88	α 76, 693	.....	12
1798	522, 245	1-499	85	α 85, 566	.....	15
1799	626, 495	1-499	85	α 109, 599	.....	15
1800	644, 076	1-498	82	123, 882	1-550	18
1801	799, 304	1-525	88	158, 365	1-550	17
1802	798, 805	1-546	84	146, 799	1-550	16
1803	787, 424	1-585	83	163, 713	1-584	17
1804	1, 132, 709	1-624	90	α 121, 925	.....	10
1805	922, 298	1-687	91	α 87, 842	.....	9
1806	967, 608	1-700	91	α 90, 711	.....	9
1807	1, 020, 472	1-732	92	α 86, 780	.....	8
1808	492, 164	1-781	91	α 47, 674	.....	9
1809	575, 711	1-823	85	α 99, 205	.....	15
1810	876, 391	1-876	91	α 80, 316	.....	9
1811	921, 750	1-958	96	α 33, 202	.....	4

Tonnage entered—Continued.

Calendar year.	American tons.	Page.	Per cent.	Foreign tons.	Page.	Per cent.
1812	655, 776	1-997	93	α 47, 098	-----	7
1813	233, 966	1-1017	67	α 112, 256	-----	33
1814	58, 756	2-12	55	α 48, 305	-----	45
1815	694, 754	2-114	76	216, 277	2-114	24
1816	877, 461	2-647	77	259, 017	2-647	23
1817	780, 136	2-647	79	212, 420	2-647	21
1818	755, 101	2-647	82	161, 414	2-647	18
1819	783, 579	2-647	91	85, 554	2-647	9
1820	801, 253	2-647	91	79, 204	2-647	9

α Pitkin's Statistical Review, p. 445.

The foreign tonnage entered in fourteen of the thirty-four years under consideration is taken from Pitkin's Statistical Review (p. 445), published in 1817, as no official figures have been found. Representing actual entries, the table above shows the relative activity of American and foreign vessels for the calendar years included. They include vessels with cargo and in ballast, and so do not show exactly the carrying done by either class. As our export carrying trade has always been more valuable to American vessels than our import carrying trade, it is probable that in the figures above relatively a greater American than foreign tonnage entered in ballast. The figures relate, of course, solely to vessels which actually made voyages from a foreign port to an American port. In spite of the imperfection noted, the statistics above are of much more value than the statistics of tonnage registered for the foreign trade. For example, the registered tonnage of the United States in 1812 was apparently 760,624 tons, while the registered American tonnage entering our ports was 655,776 tons, showing the active employment of our shipping in foreign trade. Just before the close of the war of 1812, in 1814, our registered tonnage still amounted apparently to 674,663 tons, but it had been so driven to the shelter of our ports that only 58,756 tons entered the United States during the year.

ACTUAL EARLY CAUSES AND CONDITIONS.

The above table shows the tonnage and percentage of American and foreign vessels entering the United States annually from 1789 (five months only) to 1821, when our present exact plan of statistics was put into operation. The columns giving volume and page refer to American State Papers, Commerce and Navigation, and are included as a guaranty of accuracy. The statistics above may naturally be divided into two periods: First, from 1789 to 1815, the period of almost incessant European warfare, except for the brief respite in 1801-2, afforded by the treaty of Amiens. Within this period is included the period of the embargo acts, 1808-9, when, as the table indicates, the entries of American vessels sunk one-half, and of the war of 1812, at the close of which nearly all our shipping in foreign trade had been driven to the shelter of home ports. Those who look to acts of Congress concerning commerce as at all times more potent than natural causes or causes to be found in the great movements of the world, attribute our maritime growth to the policy of discriminating duties from 1789 to the embargo acts and the war of 1812. Those who do

not hold to that belief will recognize much force in the following from Adam Seybert's Statistical Annals, pp. 59-60, Philadelphia, 1818:

"The most memorable of revolutions was commenced in France in 1789, the wars consequent to that event created a demand for our exports, and invited our shipping for the carrying trade of a very considerable portion of Europe; we not only carried the colonial productions to the several parent States, but we also became the purchasers of them in the French, Spanish, and Dutch colonies. A new era was established in our commercial history; the individuals who partook of these advantages were numerous; our catalogue of merchants was swelled beyond what it was entitled to be from the state of our population. Many persons who had secured moderate capital from mechanical pursuits soon became the most adventurous. The predominant spirit of that time has had a powerful effect in determining the character of the rising generation of the United States. The brilliant prospects held out by commerce caused our citizens to neglect the mechanical and manufacturing branches of industry; fallacious views, founded on temporary circumstances, carried us from these pursuits, which ultimately must constitute the resources, wealth, and power of this nation.

"Temporary benefits were mistaken for permanent advantages; so certain were the profits on the foreign voyages that commerce was only pursued as an art; all the knowledge which former experience has considered as essentially necessary was now unattended to; the philosophy of commerce, if I am allowed the expression, was totally neglected; the nature of foreign productions was but little investigated by the shippers in the United States; the demand in Europe for foreign merchandise, especially for that of the West Indies and South America, secured to all these cargoes a ready sale with a great profit. The most adventurous became the most wealthy, and that without the knowledge of any of the principles which govern commerce under ordinary circumstances. No one was limited to any one branch of trade; the same individual was concerned in voyages to Asia, South America, the West Indies, and Europe. Our tonnage increased in a ratio with the extended catalogue of the exports; we seemed to have arrived at the maximum of human prosperity; in proportion to our population we ranked as the most commercial nation; in point of value our trade was only second to that of Great Britain."

On the same subject Pitkin says:

"The war between England and France, which began in 1793, soon after the establishment of the present national Government, and between England and Spain in 1796, and which continued, with but a short interval, until it involved all the nations of Europe, *threw into the hands of the American merchant no small portion of the trade of the world.* The vast superiority of the naval force of England rendered the intercourse between the European powers at war with that nation and their colonies extremely difficult. They were therefore obliged to depend in a great measure upon neutrals to carry on the trade between them and their distant possessions. The valuable productions of the French, Spanish, and Dutch East and West Indies had no other mode of finding their way to Europe, without great risk and expense, but by the aid of a neutral flag. The local situation of the United States in relation to the West India Islands and their long-accustomed habits of intercourse with them, naturally threw a great

proportion of this trade into the hands of the Americans; and the increase in the tonnage of the United States, as well as the spirit and enterprise of their citizens, led them also to engage in the more distant trade of the East Indies and every other part of the world." (Statistical View of American Commerce, etc., Timothy Pitkin, New York, 1817.)

The decline of our entries under the embargo act, their temporary increase when that act was repealed, and their almost total cessation by the war of 1812, do not require explanation.

The policy of discriminating duties virtually ended in 1815. When the world laid aside its arms, at the same time it stopped commercial warfare. The purposes of its original establishment have been shown to have been radically different from the purpose given as a reason now for its exhumation. Some of the statistics in its support have been shown to be of uncertain parentage and of little reliability. The results achieved during its operation have been shown to have been due to other and greater causes.

From 1815, when reciprocity with Great Britain began, to 1820, the American tonnage entering the United States steadily increased, as compared with the foreign.

Reciprocity treaties were in force between the United States and England, Sweden and Norway, Denmark, Bremen, and Hamburg, before the general reciprocity act of 1828, without perceptibly affecting the proportion of our merchant marine active in trade between the United States and foreign ports.

C. STATISTICS SINCE 1821.

The application in 1821 of a complete and accurate statistical method concerning commerce and navigation permits a more exact view of the operations of our merchant marine, active in trade between the United States and other nations, than was possible under the former table. The following table shows the total tonnage of vessels, entering and clearing combined, classified as American or foreign, with the percentage of each, and in the last column the percentage of exports and imports (valuation) carried by American vessels:

Tonnage entered and cleared.

Year.	American.	Per cent.	Foreign.	Per cent.	Exports and imports (valuation) carried in American vessels. (Per cent.)
1821.....	1,570,045	90	164,604	10	88
1822.....	1,501,709	88	198,081	12	84
1823.....	1,585,082	87	239,208	13	90
1824.....	1,769,311	90	204,819	10	91
1825.....	1,841,120	91	188,007	9	92
1826.....	1,895,218	90	205,071	10	92
1827.....	1,898,908	88	268,899	12	91
1828.....	1,765,785	85	301,253	15	89
1829.....	1,817,748	87	263,749	13	89
1830.....	1,938,987	88	265,336	12	89
1831.....	1,895,456	77	553,942	23	86
1832.....	1,924,487	71	780,543	29	83
1833.....	2,253,501	69	993,744	31	84
1834.....	2,208,690	66	1,145,752	34	83
1835.....	2,753,270	68	1,280,134	32	84
1836.....	2,570,907	65	1,354,984	35	84
1837.....	2,566,342	63	1,521,995	37	83
1838.....	2,711,735	69	1,196,276	31	84

Tonnage entered and cleared—Continued.

Year.	American.	Per cent.	Foreign.	Per cent.	Exports and imports (valuation) carried in American vessels. (Per cent.)
1839.....	2,969,207	70	1,236,653	30	84
1840.....	3,223,955	69	1,418,849	31	83
1845.....	4,089,463	69	1,840,888	31	82
1850.....	5,205,804	60	3,503,837	40	72
1855.....	7,920,370	65	4,194,270	35	76
1860.....	12,087,209	71	4,977,916	29	66
1865.....	5,968,795	47	6,812,090	53	28
1870.....	6,992,967	38	11,332,095	62	36
1875.....	7,310,589	30	16,278,728	70	35
1880.....	6,834,319	19	29,219,229	81	17
1885.....	6,363,567	25	24,456,029	79	15
1890.....	8,149,878	23	28,106,245	77	13
1895.....	8,977,057	23	30,068,404	77	12

When we began reciprocity with England in 1815 three-fourths of the vessels entering the United States from foreign ports were American, and sixteen years later the same proportion held good. For 1816 the tonnage entered was 877,461 American, 259,017 foreign, and for 1831 the tonnage entered was 922,952 American and 281,948 foreign.

The sixty-five years which have elapsed since that time have witnessed the systematic application of steam to navigation and the substitution of iron and steel for wood, factors in the development of international trade which all but theoretical zealots recognize as of very much greater consequence than any act of Congress relating to shipping. This period has been admirably subdivided by the Hon. Henry Fry, in his "History of North Atlantic Steam Navigation," as follows:

"1833. Change from sail to wooden paddle, steam (for speed).

"1843. Change from wood to iron hulls (for strength).

"1850. Change from paddle to screw (for economy).

"1856. Change from simple to compound engines (to save fuel).

"(To this might be added the later change from compound to triple expansion engines, and perhaps from 1904 to the turbine system.)

"1879. Change from iron to steel hulls (for cost).

"1889. Change from single to twin screws (for safety)."

From the time when iron became the chief material of marine construction up to the present it is useless to seek for any other cause than that for the decline of our shipping. To invoke the spirit of the policy of retaliation in the belief that it can overcome this substantial obstacle of our marine growth would be an act of credulity quite foreign to a practical age and nation. But our annual output of iron and steel has now, at times, exceeded that of Great Britain, and soon the cost of its production must be less here than abroad.

D. AMERICAN SHIPS IN BRITISH TRADE.

The theory that the policy of reciprocity has operated especially to the advantage of Great Britain and to the disadvantage of the United States is untenable. American tonnage registered for foreign trade between 1840 and 1860 was increasing twice as fast as British tonnage.

In 1840 the tonnage of vessels entering and clearing from the United Kingdom with cargo was 7,497,833 tons, of which 70 per cent, or

5,216,159 tons, were British and 11 per cent, or 829,052 tons, were American. In 1860 the tonnage entering and clearing with cargo in Great Britain was 20,837,918 tons, of which 58 per cent, or 12,119,454 tons, were British and 13 per cent, or 2,734,381 tons, were American. During these twenty years of reciprocity British tonnage entering and clearing British ports with cargo increased 132 per cent; American tonnage in the same trade increased 229 per cent. These figures (taken from the board of trade report, Progress of British Shipping, 1895, Table 3) cover Great Britain's trade with the whole world. In direct trade between the United States and Great Britain we controlled the majority of the trade until the civil war, as shown by the following table (same report, Table 18):

Tonnage of American and British shipping entered and cleared with cargoes in Great Britain in trade with United States.

Year.	American.	Per cent.	British.	Per cent.
1853	1,592,939	65	857,250	35
1854	1,847,069	71	741,401	29
1855	1,854,808	81	420,268	19
1856	2,188,612	77	664,250	23
1857	1,827,611	74	650,294	26
1858	1,826,841	76	562,048	24
1859	1,635,563	68	784,543	32
1860	2,245,234	70	945,668	30
1861	2,052,935	66	1,041,818	34
1862	1,646,885	65	877,115	35
1863	927,186	44	1,173,468	56
1864	674,408	35	1,250,585	65
1865	484,098	28	1,231,660	72
1870	825,692	24	2,625,991	76
1875	736,338	17	3,643,184	83
1880	612,634	8	6,939,245	92
1885	395,428	6	6,672,130	94
1890	246,759	3	7,884,791	97
1895	613,332	7	8,000,801	93

Again, even up to the outbreak of the civil war, the tonnage built annually in the United States was about equal to that built in Great Britain, and the American tonnage sold to foreigners was about equal to that sold by Great Britain to foreign nations.

Year.	Tonnage built.		Tonnage sold to foreigners.	
	American.	British.	American.	British.
1858	244,713	236,554	26,305	28,474
1859	156,602	212,744	30,860	26,774
1860	214,798	225,871	17,418	13,908
1861	233,194	208,326	26,649	7,487
Total	849,307	883,495	101,222	74,642

INDIRECT TRADE OF AMERICAN VESSELS.

It is difficult to ascertain the extent to which American vessels formerly acted as carriers between different foreign countries and their dependencies without entering and clearing from the United States at all. Statistics on this point are not readily accessible. When it is recalled that the German Empire dates back only to 1871, that the modern Kingdom of Italy is only 34 years old, and that during

the century foreign seaports have at times changed nationality as the result of wars, the difficulty of obtaining any statistics on the subject is apparent. In 1840 the American tonnage entered at and cleared from the United Kingdom in cargo and ballast, from or to the United States, was 596,254 tons. The American tonnage entered and cleared from Great Britain, with cargo only, from or to all the world, including the United States, was 829,052 tons. As during that year the general entries and clearances of vessels in ballast at British ports was 20 per cent additional to the entries and clearances with cargo, it is probable that the total entries and clearances, with cargo or in ballast, of American vessels in Great Britain that year were 990,000 tons, of which 596,000 tons were in direct trade between the two countries, the remaining 394,000 tons being American carriers for Great Britain to and from her colonies and foreign nations other than the United States.

Thus of the carrying we did over fifty years ago for Great Britain, 60 per cent was direct between the two countries and 40 per cent did not enter or clear in the United States, and is altogether ignored in the "historical" argument of the advocates of discrimination. For recent years the exact figures, found in the British report already alluded to, are as follows:

American vessels entered at and cleared from the United Kingdom.

Year.	Total.	To or from United States.	To or from the rest of the world.
1860.....	2,734,881	2,245,234	489,347
1870.....	1,134,215	826,692	311,523
1880.....	822,277	612,634	269,643
1890.....	272,735	246,759	25,976
1895.....	649,254	613,332	25,922

There are one or two other matters that I have left with Mr. Marvin, that all deal with the past. I should prefer to take up this matter as a present proposition.

EFFECTS OF DISCRIMINATION TO-DAY.

I have compiled here some statistical information as bearing more particularly upon the indirect discriminating duty policy, which is open to all the objections of the direct—that is, the sweeping comprehensive scheme—and to some peculiar and special ones of its own.

These figures that I will leave with you deal with the import trade of the United States, and they show for the fiscal year ended June 30, 1903—the 1904 figures, I am told, will not be in condition so that one can handle them until February, and so I had to take these—in the first place, the net tonnage of vessels entered the United States from the various countries of the world classed as national; that is, belonging to the country from which they cleared; second, as American, and, third, as other than national; that is, belonging to some other country than that from which they cleared. The last named is the tonnage which would be affected by the indirect method of discrimination. The tables also show the imports, classed as free and dutiable, brought here by those vessels,

The tables referred to are as follows:

TABLE I.—*Import trade of the United States.*

[Compiled from returns of the Bureau of Statistics.]

The following tables show the import trade of the United States for the fiscal year ended June 30, 1903, from the countries and colonies of the world and the Philippines, arranged by grand geographical divisions.

This trade is divided into two parts in the table, the net tonnage which entered the United States from the respective countries, etc.; second, the value of the imported cargoes.

Net tonnage is classed as national (i. e., belonging to the country or its possessions whence the vessel cleared), American, and other (i. e., foreign tonnage belonging to some other country than that from which they cleared). The total and the percentage of "other" tonnage, which would be involved in an indirect discriminative project, is stated in the fifth column.

Cargoes are divided into free and dutiable. The total is stated; also the percentage in value of the free imports, which under any discriminating duty project based on cargo would presumably be transferred to the dutiable list.

Imports throughout are as of the "country of origin," not the country of export. For example, all the imports from Switzerland, of course, were exported through seaports belonging to other countries. Most Russian imports come through German, Dutch, or French ports, considerable French imports come through Antwerp, etc.

EUROPE.

Entered from—	Vessels (net tonnage entered).					Imports.		
	National.	American.	Other.	Total.	Per cent of other.	Free.	Drawable.	Total.
Belgium.....	158,087	142,686	744,732	1,045,485	71	\$7,570,421	\$14,986,916	\$22,557,337
United Kingdom.....	6,671,323	254,937	591,237	7,517,547	8	58,727,562	131,294,096	190,021,658
Italy.....	319,723	575,207	894,930	1,790,860	63	19,402,544	16,383,868	35,786,412
Netherlands.....	534,292	294,586	828,878	1,657,756	36	5,863,449	17,005,529	22,868,978
Germany.....	1,937,513	2,147	266,406	2,206,065	12	27,925,463	91,847,048	119,772,511
Spain.....	154,172	253,768	407,940	815,880	62	2,968,755	5,509,832	8,478,587
France.....	334,267	1,989	169,259	505,465	34	15,064,611	74,985,561	90,050,172
Portugal.....	35,879	41,194	77,073	154,167	54	2,844,217	689,345	3,533,562
Russia.....	308	908	30,817	32,023	100	6,092,544	3,142,195	9,234,739
Azores and Madeira Islands.....	9,012	29,509	30,725	69,246	97	1,791	16,588	18,379
Sweden and Norway.....	148,434	27,576	36,588	212,608	75	307,079	4,668,156	4,975,234
Denmark.....	44,672	12,768	161,202	220,642	8	376,727	222,675	599,402
Greece.....	.....	4,523	4,523	4,523	100	131,282	1,326,965	1,458,247
Austria-Hungary.....	.....	3,689	48,361	52,050	8	1,845,172	8,721,757	10,566,929
Greenland and Iceland.....	.....	2,139	2,000	4,139	48	100,606	.....	100,606
Turkey in Europe.....	.....	.....	1,864	1,864	100	1,151,530	4,521,048	5,672,578
Gibraltar.....	2,923	.....	2,923	2,923	.....	2,599	3,872	6,471
Switzerland.....	.....	.....	.....	.....	.....	320,444	20,862,884	21,183,328
Malta.....	.....	.....	.....	.....	.....	13,937	6,106	20,043
Roumania.....	.....	.....	.....	.....	.....	6,422	13,512	25,263
Servia.....	.....	.....	.....	.....	.....	11,751	.....	.....
Total.....	10,350,585	404,756	3,040,184	13,804,525	22	150,796,277	396,430,610	547,226,887

SOUTH AMERICA.

Entered from—	Vessels (net tonnage entered).					Imports.		
	National.	American.	Other.	Total.	Per cent of other.	Free.	Drawable.	Total.
Brazil.....	13,443	489,202	502,645	991,647	97	\$65,560,985	\$1,660,045	\$67,221,030
Chile.....	5,439	181,275	208,255	394,959	89	9,010,664	369,540	9,380,204
Colombia.....	211,236	155,640	386,876	733,752	43	3,422,235	793,332	4,215,568
Argentina.....	19,069	80,013	99,082	179,102	81	2,537,090	6,893,188	9,430,278
Venezuela.....	15,103	53,610	68,713	127,423	78	4,231,021	1,087,548	5,318,569
Uruguay.....	2,527	42,466	44,993	89,986	94	332,707	2,648,925	2,981,632
Peru.....	10,170	37,658	47,828	95,656	79	1,134,296	1,786,378	2,920,674
Guiana.....	31,661	2,881	19,742	54,284	36	18,025	3,333,633	3,351,658
British.....	2,324	2,061	4,191	8,576	66	573,219	874,464	1,447,683
Dutch.....	2,810	2,082	1,222	6,114	31	25,030	25,030	50,060
French.....	.....	2,149	2,149	2,149	.....	1,411,780	313,071	1,724,851
Ecuador.....	.....	.....	.....	.....	.....	3,378	1,009	4,387
Bolivia and Paraguay.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	39,744	297,232	1,065,019	1,401,995	76	88,260,419	19,167,904	107,428,323

CENTRAL AMERICA.

Costa Rica.....	.....	35,170	166,778	201,948	83	\$83,681,373	\$130,150	\$8,761,523	97
Honduras.....	218	34,713	140,882	175,813	80	1,286,715	89,282	1,375,997	94
Nicaragua.....	.....	10,661	61,713	72,374	85	1,654,824	210,473	1,865,297	89
Guatemala.....	.....	2,132	19,300	21,432	90	2,362,138	107,925	2,470,063	96
Honduras, British.....	.....	134	14,744	24,913	59	306,892	70,075	376,967	81
Salvador.....	10,045	.....	.....	.....	.....	825,958	66,029	891,987	93
Total.....	10,263	82,800	403,417	496,480	81	9,987,900	673,934	10,671,834	94

ASIA.

Japan.....	91,554	95,976	219,415	406,945	54	\$98,218,905	\$15,924,823	\$44,143,798	64
East Indies, Dutch.....	5,704	2,987	136,070	144,721	94	2,938,792	18,293,540	16,792,392	18
Chinese Empire.....	.....	19,902	58,207	73,109	74	13,300,107	13,548,739	21,648,846	50
Hongkong.....	110,028	61,707	57,019	228,754	25	43,433,743	82,626	1,359,095	92
East Indies, British.....	116,983	3,715	46,209	166,957	28	95,927,407	15,893,866	51,826,778	69
Turkey in Asia.....	.....	.....	20,302	20,302	100	1,690,206	3,207,222	4,897,428	33
Russia, Asiatic.....	377	63	3,956	4,386	90	6,837	21,593	28,430	24
China.....	.....	.....	2,065	2,065	100	.....	.....	.....	.....
Russian.....	1,655	2,167	1,670	5,302	32	961	21,533	2,2494	4
British.....	1,758	.....	.....	1,758	.....	113	1,542	1,656	7
French.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
German.....	.....	.....	.....	.....	.....	118,038	94,230	212,268	56
Korea.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
All other Asia.....	.....	.....	.....	.....	.....	11	.....	11	100
East Indies.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
French.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Portuguese.....	.....	.....	.....	.....	.....	2,318,786	9,868	2,328,654	100
Aden.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	328,019	186,517	544,912	1,059,448	51	84,953,906	62,748,468	147,702,374	58

WEST INDIES.

Cuba.....	101,527	725,896	995,887	1,823,310	55	\$3,114,807	\$59,827,983	\$62,942,790	63
British.....	278,268	327,542	338,335	944,140	36	8,522,392	4,927,856	13,450,248	63
Haiti.....	.....	2,955	117,400	120,355	96	1,097,798	11,931	1,109,729	99
Danish.....	801	7,543	89,386	97,730	91	11,144	722,876	734,020	2
Santo Domingo.....	49	58,864	64,777	123,190	53	670,666	2,163,010	2,833,676	24
French.....	2,211	3,972	17,670	23,853	74	12,519	75,153	13,298	94
Dutch.....	5,122	64,803	7,664	77,589	10	330,678	.....	405,831	81
Total.....	387,973	1,191,076	1,631,119	3,210,167	51	13,760,004	67,729,588	81,489,592	17

AFRICA.

Entered from—	Vessels (net tonnage entered).				Imports.				
	National.	American.	Other.	Total.	Per cent of other.	Free.	Dutiable.	Total.	Per cent free.
British South Africa.....	139,363	6,357	119,594	265,314	45	\$117,890	\$228,500	346,390	34
Portuguese Africa.....	4,510	772	95,187	100,469	95	9,886	564	10,450	95
Canary Islands.....	3,035	612	92,748	96,395	96	18,066	24,481	42,547	42
French Africa.....		649	48,493	49,142	98	395,949	49,391	445,340	89
Turkey in Africa (Egypt and Tripoli).....			10,009	10,009	100	9,537,314	1,310,415	10,847,729	88
British West Africa.....	567	2,212	3,820	6,599	58	201,346	1,301	202,647	99
British East Africa.....	2,280		899	3,179	28	374,591	43,280	422,871	89
Madagascar.....	1,732			1,732					
German Africa.....						29,503	23	29,526	100
Liberia.....						2,747		2,747	100
Spanish Africa.....						21,069	3,959	25,028	84
Italian Africa.....							2,584	2,584	
All other Africa.....						194,049	9,743	203,792	95
Total.....	151,487	10,602	370,750	532,839	69	10,902,410	1,679,241	12,581,651	87

OCEANIA.

British Australasia.....	156,206	141,642	51,042	348,890	15	\$3,025,840	\$3,942,643	\$6,968,183	43
Philippine Islands.....		4,797	47,647	62,444	91	10,957,761	414,523	11,372,584	96
French Oceania.....		22,425	8,663	31,088	28	578,576	3,849	579,457	100
All other British Oceania.....	1,781	5,725		7,456		2,094,012		2,097,861	100
German Oceania.....	280	415		695		25,188	254	25,442	99
Total.....	158,217	175,004	107,352	440,573	25	16,680,877	4,362,650	21,043,527	79

NORTH AMERICA.

Mexico.....	1,689	248,327	578,571	828,537	70	\$34,284,985	\$7,028,726	\$41,313,711	83
Nova Scotia, New Brunswick.....	740,427	356,144	313,500	1,410,071	22	1,642,041	8,819,297	10,461,338	16
British Columbia.....	256,104	895,387	135,855	1,287,346	11	3,071,443	3,307,425	6,378,873	48
Newfoundland and Labrador.....	42,265	7,095	53,613	102,873	52	440,798	427,440	868,238	51
Bermuda.....	78,644	3,061	4,855	86,560	6	109,505	482,602	592,107	18
Miquelon, Langley, etc.....			119	119	16	2,214	17,361	19,575	11
Quebec, Ontario, Manitoba.....	3,382,111	3,044,260		6,426,371		11,278,195	26,663,012	37,941,207	30
Total.....	4,501,651	4,554,420	1,086,413	10,142,484	• 11	50,829,186	46,745,863	97,575,049	52

WHALE FISHERIES.

Whale fisheries.....	4,176	976	5,152	19			
RECAPITULATION.							
Europe.....	10,350,585	404,756	3,049,184	13,804,525	\$150,796,277	\$396,430,610	\$547,226,887
Africa.....	151,487	10,602	370,750	532,839	10,902,410	1,679,241	12,581,651
North America:							
West Indies.....	387,973	1,191,075	1,681,119	3,210,167	13,760,004	67,729,588	81,489,592
Central America.....	10,263	82,800	403,417	496,480	9,997,900	673,934	10,671,884
British and other.....	4,501,651	4,554,420	1,086,413	10,142,484	50,829,186	46,745,363	97,575,049
Total North America.....	4,899,887	5,828,295	3,120,949	13,849,131	74,587,090	115,149,385	189,736,475
South America.....	39,744	297,232	1,065,019	1,401,995	88,260,419	19,167,904	107,428,323
Asia.....	328,019	186,517	544,912	1,059,448	84,953,906	62,748,468	147,702,374
Oceania.....	158,217	175,004	107,352	440,573	16,680,877	4,862,650	21,043,527
Whale fisheries.....		4,176	107,976	5,152	19		
Total.....	15,927,939	6,906,582	8,259,142	31,083,683	426,180,979	599,538,258	1,025,719,237
					27		42

a CLEARANCES AND ENTRIES OF VESSELS IN THE UNITED STATES.

[1901. Department Circular No. 68.]

TREASURY DEPARTMENT, BUREAU OF NAVIGATION,
Washington, D. C., June 13, 1901.

To collectors of customs and others:

To secure uniform and correct returns of tonnage, collectors of customs, in tabulating clearances of vessels for foreign ports, will credit the tonnage to the first foreign port at which the vessel will enter for discharge of cargo, as shown in the clearance papers; but if the bulk of the cargo is to be discharged at some other foreign port, the tonnage will be credited to that port. In the case of entries, the first foreign port from which the vessel sailed with cargo for the United States is that to which the entered tonnage will be credited in the collector's returns; but such credit will not govern necessarily in the collection of tonnage tax or the requirement of bills of health.

Approved:

O. L. SPAULDING, Acting Secretary.

E. T. CHAMBERLAIN, Commissioner.

INDIRECT DISCRIMINATION AND THE BRITISH EMPIRE.

Mr. CHAMBERLAIN. Without going into it in full detail, I wish to take up the application of indirect discrimination in a few instances. We will assume that this policy will work; that it will not be halted at the start by any one of a dozen different methods of retaliation, each nation, of course, adopting the one that seems to it most effective or most desirable from its point of view. Of course it is not to be expected that Switzerland, for example, would devise any shipping legislation, but if it is proposed to increase to any considerable extent the carrying charges on Swiss imports, I suppose Switzerland will look around and try to find some way to even up matters. On the other hand, it is equally certain that Great Britain and Germany, which are essentially maritime powers, will deal with the matter from a shipping point of view, and we may expect the retaliations in those countries to take some form addressed to American shipping.

Between those extremes, of course, there are all sorts of variable conditions, each nation having its own especial trade relations with the United States.

I submit tables compiled in the same manner as Table I, dealing with special countries and their possessions, and special phases of results of the application of discrimination to indirect trade, so called.

Special applications.	Vessels.				Imports.				
	National.	American.	Other.	Total.	Per cent of total of other.	Free.	Dutiable.	Total.	Per cent free.
British Empire.....	12,022,539	5,114,946	1,752,084	18,889,569	9	\$128,627,468	\$200,417,116	\$829,044,584	39
Abolition of the free list.....	7,296	592,430	1,964,371	2,564,097	77	128,713,224	11,868,052	140,581,276	92
Germany.....	1,937,733	2,562	266,405	2,206,760	12	27,980,267	91,848,867	119,829,134	23
France.....	340,739	31,193	245,426	617,358	40	16,078,910	75,053,973	91,132,883	18
Cuba.....	101,527	725,887	995,887	1,823,310	55	3,114,807	59,827,983	62,942,790	5
Chinese and Turkish Empire.....	90,382	19,302	90,382	110,284	82	25,679,157	22,837,424	48,066,581	53
Japan.....	91,554	95,976	219,415	406,945	54	28,218,905	15,942,823	44,143,728	64
Switzerland.....	4,797	4,797	47,647	52,444	91	10,957,761	414,823	11,372,584	96
Philippine Islands.....	80,013	19,069	80,013	99,082	81	2,537,090	6,893,138	9,430,278	27
Argentina.....	9,012	27,576	27,576	36,588	75	3,307,079	4,668,155	7,975,234	6
Sweden and Norway.....	14,510,460	6,606,771	5,689,206	26,806,437	21	372,535,112	510,167,238	882,702,400	58
Total.....									
GREAT BRITAIN AND HER POSSESSIONS.									
United Kingdom.....	6,671,323	254,937	591,287	7,517,547	8	\$58,727,562	\$131,294,096	\$190,021,658	31
Gibraltar.....	2,923	.....	.....	2,923	.....	13,937	8,872	6,471	40
Malta.....	.....	.....	.....	.....	.....	433,743	926,162	1,359,905	32
Hongkong.....	110,028	61,707	57,019	228,754	25	35,927,407	15,899,366	51,826,773	69
East Indies.....	116,933	3,715	46,209	166,857	28	21,533	21,533	21,533	4
China.....	1,665	2,167	1,670	5,502	32	2,318,786	9,868	2,328,654	100
Aden.....	278,263	327,542	338,335	944,140	36	8,522,392	4,927,856	13,450,248	63
West Indies.....	139,363	6,837	119,594	255,314	45	117,890	228,500	346,390	34
South Africa.....	2,280	2,212	3,890	6,569	58	201,346	1,301	202,647	99
East Africa.....	156,206	141,642	51,042	348,890	28	374,591	48,280	422,871	89
Australasia.....	1,731	5,725	.....	7,456	15	8,025,340	3,942,843	6,968,183	43
Oceania.....	740,427	356,144	313,500	1,410,071	22	2,094,012	8,849	2,097,861	100
Nova Scotia, New Brunswick.....	226,104	895,387	135,855	1,257,346	11	3,071,448	8,819,297	10,461,338	66
British Columbia.....	22,205	7,095	53,513	82,811	52	440,798	437,440	878,238	18
Newfoundland and Labrador.....	78,644	3,051	4,855	86,550	6	109,505	592,107	701,612	51
Bermuda.....	3,382,111	3,044,260	.....	6,426,371	36	11,278,195	26,668,012	37,941,207	30
Quebec, Ontario, Manitoba.....	31,601	2,881	19,742	54,224	1	3,531,656	3,531,656	3,531,656	1
Guiana.....	10,045	124	14,744	24,913	59	306,892	70,075	376,967	81
Honduras.....	12,022,539	5,114,946	1,752,084	18,889,569	9	128,627,468	200,417,116	329,044,584	39
Total British.....									

GREAT BRITAIN AND HER POSSESSIONS.

Mr. CHAMBERLAIN. A project of indirect discrimination must be futile in the case of Great Britain and her possessions on account of the overwhelming preponderance of British shipping. The entries in the United States from Great Britain and her possessions comprise—

British	12, 022, 539
American	5, 114, 946
Other foreign	1, 752, 084
Total	18, 889, 569

If Congress should feel disposed to abrogate our treaties, the only effect on shipping in trade between the United States and British ports would be to substitute British ships for the 9 per cent (1,752,084 tons) of other foreign ships now in that trade. Great Britain has now in American trade enough tonnage and over 2,000,000 tons to spare for that purpose. If British and American ships are treated on an equality in this branch of trade, British ships will retain every advantage over American they now possess.

ABOLITION OF THE FREE LIST.

I next invite your attention to trade with South and Central America.

Abolition of the free list.

Country.	Vessels.					Imports.			
	Nation- al.	Ameri- can.	Other.	Total.	Per cent of total of other.	Free.	Dutiable.	Total.	Per cent free.
SOUTH AMERICA.									
Brazil		13, 443	489, 202	502, 645	97	\$65, 560, 985	\$1, 660, 045	\$67, 221, 030	98
Chile	5, 439	16, 541	181, 275	203, 255	89	9, 010, 664	369, 540	9, 380, 204	96
Venezuela		15, 103	53, 610	68, 713	78	4, 231, 021	1, 087, 548	5, 318, 569	80
Ecuador		2, 149		2, 149		1, 411, 780	313, 071	1, 724, 851	82
Colombia		211, 236	155, 640	366, 876	43	3, 422, 236	793, 332	4, 215, 668	81
Total	5, 439	258, 472	879, 727	1, 143, 638	77	83, 636, 686	4, 223, 536	87, 860, 222	96
CENTRAL AMERICA.									
Costa Rica		35, 170	166, 778	201, 948	83	3, 631, 373	130, 150	3, 761, 523	97
Honduras	218	34, 713	140, 882	175, 813	80	1, 286, 715	89, 282	1, 375, 997	94
Nicaragua		10, 661	61, 713	72, 374	85	1, 654, 824	210, 473	1, 865, 297	89
Guatemala		2, 132	19, 300	21, 432	90	2, 292, 138	107, 925	2, 400, 063	96
Salvador						825, 958	66, 029	891, 987	93
Total	218	82, 676	388, 673	471, 567	85	9, 691, 008	603, 859	10, 294, 867	94
Mexico	1, 639	248, 327	578, 571	828, 537	70	34, 284, 985	7, 028, 726	41, 313, 711	83
Haiti		2, 955	117, 400	120, 355	96	1, 097, 798	11, 931	1, 109, 729	99
Liberia						2, 747		2, 747	100
Grand total	7, 296	592, 430	1, 964, 371	2, 564, 097	77	128, 718, 224	11, 868, 052	140, 581, 276	92

Any plan of discriminating duties necessarily involves the abolition of the free list and the transfer of articles upon it to the dutiable list. During the fiscal year 1903, 42 per cent in value of our imports were on the free list; during the fiscal year 1904, nearly 47 per cent. As articles on the free list are usually but little advanced in any process of manufacture, they are more bulky as a rule than dutiable articles. Nearly half in value, in bulk (which constitutes cargo) they are doubtless 65 per cent of our imports, probably more. The countries which

do not engage in manufacturing and export to us chiefly articles free of duty naturally do not build ships, such as South and Central America. They are the countries which under indirect discrimination are supposed to offer the best opportunities for increased American shipping. As 92 per cent of our imports from them are on the free list this opportunity can be grasped, not by lowering the tariff, but only by increasing it through abolition of the free list.

Returning for a moment to the nature of the import trade of the United States with Great Britain and its various dependencies the world around. The total net tonnage of vessels that entered the United States during the fiscal year 1903 from foreign ports was 31,093,633 net tons. Of that amount 18,889,569 entered from Great Britain or from British colonies in various parts of the world. This total of 18,889,569 was divided into the following classes: 12,022,539 were British, 5,114,946 were American. The indirect trade, the trade conducted by other than American and British vessels between Great Britain and her colonies and the United States, amounted to only 1,752,000 tons, or 9 per cent of the total. That will be the volume of tonnage which will be taxable under an indirect method, whether you put the tax on the tonnage of the ship or on the cargo.

Representative MINOR. How many million tons of American ships engaged in the foreign trade entered from Great Britain and her colonies?

Mr. CHAMBERLAIN. There were 5,114,946 tons, but most of that, let me say, is of course on the lakes, in the trade with Quebec, Ontario, and Manitoba. I am glad you spoke of that. The figures as to Quebec, Ontario, and Manitoba are 3,382,111 tons, national (British); 3,044,260, American; and there were not in that fiscal year entries of ships of any other nations. So far as indirect discrimination is concerned, it would not apply to trade with Quebec, Ontario, and Manitoba at all; this is already restricted to American and British vessels in fact, not by law.

The form in which you choose to apply the indirect discrimination will make a great deal of difference. If, for example, you propose to say that all cargoes that are carried in other than British and American vessels shall pay 5 per cent or 10 per cent more duty it will not amount to anything because there is not any such cargo carried. On the other hand if you state the proposition in the other way and propose that American and British vessels bringing here cargoes from British ports the world round shall have the benefit of 5 or 10 per cent less duty, of course that is practically a reduction of the duty on everything that comes from Canada except what comes by rail. There is a very large amount that comes by rail. Now, whether it has been suggested that the cargoes which come from Canada by ship should pay the lower duty, and freight which comes by the railroads should continue to pay the same duty, I do not know.

What would be the effect of an effort—assuming it could be carried through, as I say, without meeting the general objection—assuming that Great Britain and every other nation would agree that for the sake of the benefit to American shipping all the trade between Great Britain and her colonies and the United States should be conducted exclusively by American and British vessels? There would be 1,752,084 tons (about 9 per cent), Italian, German, French, etc., which would have to go out. American vessels would stand absolutely no better chance of filling that gap under this proposition than they have now,

because you keep them precisely on a plane. This proposition, as I understand, is to put American and British vessels on a plane in trade between the United States and England and her colonies. British vessels would retain all their present advantage, and that gap would simply be filled by British vessels. The German and others would go out and British would take their place. That would naturally occur in a very short time. The margin of British tonnage in trade with the United States is so large that it could fill that gap of seventeen hundred thousand tons and have two millions to spare.

THE COUNTRY OF ORIGIN PLAN.

I should say, perhaps, here that I understand that one of the propositions is to make the restriction applicable not only to the other than national or American vessel, but also to the cargo that comes from other than the country of origin. Now, in most cases the full and trustworthy returns of the Bureau of Statistics do not enable one to ascertain exactly the facts in this respect. They class cargoes as of the country of origin, not of the country of actual export. It is not possible from those figures to estimate exactly the cargo that comes from other than its country of origin, but of course the facts of commerce, with which the Commission is undoubtedly familiar, and more familiar than I am, will enable you to go through these tables, if you so desire, and pick out the places where this form of indirect trade obtains. From the United Kingdom itself the amount is not so very large. But take Hongkong. Of course most of our imports from Hongkong originate in the country back of Hongkong. They are really Chinese products and they will appear in the table of imports as products of China, and yet the ships which carry them out enter from Hongkong. But speaking of Great Britain and her possessions, as a rule the shipping and the tonnage are engaged in carrying goods of the country of origin itself.

The total imports from Great Britain and her colonies were \$329,000,000 out of \$1,025,000,000, and the proportion of imports on the free list was 39 per cent. One hundred and twenty-eight million dollars of our imports from Great Britain are on the free list.

ABOLITION OF THE FREE LIST INVOLVED.

That leads me back again to the second point. Any scheme of discriminating duties necessarily involves the abolition of the present free list. Now, I am not here, of course, to say whether that is a desirable or an undesirable thing. That is something on which each gentleman present doubtless has his own opinion. It is a Treasury matter besides, and not a proposition with which I have anything to do. But that is one of the conditions which absolutely must be faced—the abolition of the free list. Of course if your proposition is to make other than national and American vessels pay a higher rate of duty, abolition of the free list follows as a matter of course in indirect trade. If your proposition is to have American and national vessels pay a lower rate of duty, you can not have any rate that is lower than the free list. To make it work you must put those articles on the dutiable list in order to be able to get in under it.

A very large part of the trade of the United States is conducted with countries practically all of whose exports to us are on the free

list. The proportion of Brazil is 98 per cent; of Chile, 96 per cent; of Colombia, 81 per cent; of Venezuela, 80 per cent; of Costa Rica, Honduras, Nicaragua, Guatemala, San Salvador, 94 per cent; Mexico, 83 per cent; Hayti, 99 per cent, and—just for convenience I put Liberia in here, as it had to be put in somewhere, and this is about the handiest place to put it—Liberia, 100 per cent.

The following countries of South America—Brazil, Chile, Venezuela, Ecuador, Columbia, Honduras, Nicaragua, Guatemala, Salvador—and Mexico, Hayti, and Liberia exported to the United States \$140,000,000, of which \$128,700,000 is on the free list—92 per cent of it.

Now the shipping that carried those imports was 2,564,097 net tons. The native shipping was practically nothing. It was only 7,296 net tons. This would be the part of the world where the indirect system would apply most effectively, because it would expel the 77 per cent of foreign vessels now in that trade, assuming it was strong enough to do anything, and the price that must be paid for it is necessarily the addition of that amount of imports to the dutiable list now on the free list. This abolition of the free list, as I say, is a question with which I am not expected to deal.

Representative MINOR. You run against about thirty treaties in doing that.

Mr. CHAMBERLAIN. That objection applies to any method of discrimination. The matters I now lay before you are specific objections to indirect discrimination. Of course the treaties apply to the whole field and to any method.

Representative MINOR. Not every method.

GERMAN EMPIRE AND FRENCH REPUBLIC.

Mr. CHAMBERLAIN. The situation with regard to Germany and its possessions is very nearly the same as in the case of Great Britain and her possessions, as will be seen from the following table:

GERMANY AND POSSESSIONS.

Country.	Vessels.					Imports.			
	National.	Ameri-can.	Other.	Total.	Per cent of other.	Free.	Dutiable.	Total.	Per cent free.
Germany	1,937,513	2,147	266,405	2,206,065	12	27,925,463	91,847,048	119,772,511	23
German Africa.						29,503	23	29,526	100
German Oceania.	280	415		695		25,188	254	25,442	99
German China.						113	1,542	1,655	7
Total	1,937,793	2,562	266,405	2,206,760	12	27,980,267	91,848,867	119,829,134	23

FRANCE AND POSSESSIONS.

France	334,267	1,939	169,259	505,465	34	15,064,611	74,985,561	90,050,172	17
Guiana	310	2,052	1,222	3,584	31	25,030		25,030	100
Africa		649	48,493	49,142	38	395,949	49,391	445,340	89
Madagascar	1,732			1,732					
Oceania		22,425	8,663	31,088	28	578,576	881	579,457	100
Miquelon, Langley, etc.	461	156	119	736	16	2,214	17,361	19,575	11
China	1,758			1,758					
East Indies						11		11	100
West Indies	2,211	3,972	17,670	23,853	74	12,519	779	13,298	94
Total	340,739	31,193	245,426	617,358	40	16,078,910	75,053,973	91,132,883	18

Limited discrimination applied to Germany and her possessions would work about the same as in the case of England and her possessions. German tonnage would fill the place of other foreign tonnage (266,405) displaced. Hamburg and Bremen, however, are the ports from which much of the products of Russia reach the United States. If the rule of "country of origin" applied, these Russian exports would have three possible outlets, (1) continuing as at present; (2) taking American ships as purely Russian cargo accumulated at Hamburg or Bremen at higher freight rates; (3) seeking a Baltic or Black Sea Russian outlet in Russian ships. They would take the cheapest course. Which that would be would depend on the amount of the discriminating duty.

The tonnage that entered from Germany and its possessions was 2,206,000 tons, of which only 266,000 tons was other than German. The American tonnage was absolutely insignificant—2,562 net tons.

Representative GROSVENOR. One small sailing ship?

Mr. CHAMBERLAIN. One fair-sized sailing ship, but a small steamer.

Representative GROSVENOR. Very small.

Mr. CHAMBERLAIN. It is nothing. The inevitable result of the application of this indirect system would be the disappearance of the Italian, British, and a few other foreign ships in trade between Germany and the United States, and supplying their places with German ships.

There is, however, one matter to be borne in mind in regard to the trade with Germany. The German ports of Bremen and Hamburg are the great ports of export for the whole northern hinterland of Europe. A very large amount of Russian exports comes through Bremen and Hamburg. Just what amount comes that way the figures do not enable one to state. It would require very complicated returns to get that. The volume of statistics would have to be a great deal larger than it is now to get any statement of that.

The CHAIRMAN. You would have to split up every cargo.

Mr. CHAMBERLAIN. You would have to split up almost all the cargoes from Hamburg and Bremen, because their railroad facilities and the tremendous amount of money spent on the improvement of their harbors have given them very great advantages.

The figures of France and its possessions to a less extent fall within the class of Great Britain and her possessions and Germany. But a large amount of French exports come through Antwerp and are carried by American vessels. In the tables you will find that about nineteen millions of French products are carried by American ships. They do not take any of it from French ports at all, because all the members of the Commission who have traveled abroad know—and those who have not, too, so far as that is concerned—that American ships do not get cargo in French ports. They simply stop at Cherbourg and put off and take on passengers and mail, and do the whole thing in two hours. None of the French cargoes in American vessels come on at French ports. It is all indirect.

Representative GROSVENOR. What American vessels go to Antwerp?

Mr. CHAMBERLAIN. Two vessels of the Red Star Line.

Representative GROSVENOR. The Red Star Line is not an American line?

Mr. CHAMBERLAIN. Some of those ships are—the *Finland* and the *Kroonland*.

Representative GROSVENOR. Yes, only two of them. All of the rest are under the Belgian or British flag.

Mr. CHAMBERLAIN. That is true, and I am very much obliged to you for the suggestion. A considerable amount of that cargo also comes through Southampton. It is carried over there, where the ship stays a week. I had forgotten that.

Senator LODGE. That does not affect your point of the amount of French goods that come on indirect voyage.

Mr. CHAMBERLAIN. If every country would only be willing to sit down quietly and let the Congress of the United States arrange the shipping scheme of the world for the benefit of American shipping, indirect discrimination would be a most desirable project for the Antwerp trade; but President Grant in 1872 taught France very effectively the lesson of retaliation.

As soon as France took off her discriminating duties against American ships—by the way, that was on the indirect trade proposition—President Grant's proclamation was issued, taking them off in this country. As soon as France put them on again President Grant's proclamation followed, putting them on French vessels in the United States. When, eighteen months later France took them off, getting tired of the proposition, President Grant took them off in his turn. My recollection is that all of that happened in one administration of President Grant, although it may have covered the two.

I have gone over hastily, in the following tables, our trade with China and the Chinese and the Turkish empires, with Switzerland, which of course is peculiar, with Japan, with Argentina, and with the Philippines, soon to be coasting trade, and I will, with your consent, leave these tables with the Commission.

The tables referred to are as follows:

CHINESE AND TURKISH EMPIRES.

Country.	Vessels.				Imports.			
	Ameri-can.	Other.	Total.	Per cent of total of other.	Free.	Dutiable.	Total.	Per cent free.
China.....	19,902	58,207	78,109	74	\$13,300,107	\$13,348,739	\$26,648,846	50
Turkey:								
In Europe.....		1,864	1,864	100	1,151,530	4,521,048	5,672,578	20
In Asia.....		20,302	20,302	100	1,690,206	3,207,222	4,897,428	35
Egypt and Tripoli.....		10,009	10,009	100	9,537,314	1,310,415	10,847,729	88
Total.....	19,902	90,382	110,284	82	25,679,157	22,387,424	48,066,581	53

The Chinese and Turkish empires resemble South and Central American countries in having little shipping of their own and considerable exports (53 per cent) on our free list. Unless Congress undertakes to prescribe registry laws for China and Turkey these two nations presumably would register and put their flags over British or German vessels for American trade. It does not seem probable that they would assent to the extension of the American coasting laws to trade between their territories and the United States. Chinese exports, to an extent, come indirectly through Hongkong and under indirect discrimination would go to American steamers unless England retaliated at Hongkong.

SWITZERLAND.

Imports:	
Free	\$320, 444
Dutiable	20, 862, 884
Total	21, 183, 328
Per cent free	2

Swiss exports to the United States, nearly all dutiable, necessarily come indirectly to the United States. Whether it would be worth while to accumulate them in some continental port until there was a cargo for an American ship would depend on the extent of discrimination applied.

JAPAN.

Vessels:	
National	91, 554
American	95, 976
Other	219, 415
Total	406, 945
Per cent of total of other	54

Imports:	
Free	\$28, 218, 905
Dutiable	15, 924, 823
Total	44, 143, 728
Per cent free	64

Sixty-four per cent of our imports from Japan are on the free list. Fifty-four per cent of the shipping trade between the United States and Japan is neither American nor Japanese. Unless the free articles were made dutiable they would tend toward such ships, the dutiable tending toward Japanese and American ships, if a considerable discrimination were proposed.

ARGENTINA.

Vessels:	
American	19, 069
Other	80, 013
Total	99, 082
Per cent of total of other	81

Imports:	
Free	\$2, 537, 090
Dutiable	6, 893, 188
Total	9, 430, 278
Per cent free	27

American ships now carry 19 per cent of our imports from Argentina. Exports from Argentina to the United States are almost wholly hides and skins, of which about 65 per cent (cattle) are dutiable and 20 per cent (goat) are free. The American coasting laws could in effect be applied to trade between Argentina and the United States, and American shipping in that trade get better freight rates through reduced duties on hides if Argentina will be good enough to agree not to buy any ships abroad and put them under her flag! She is not likely to build many for foreign trade. The chance to build American ships for this trade would depend on the action of the Argentine Congress, which can not be foretold.

PHILIPPINE ISLANDS.

Vessels:	
American	4, 797
Other	47, 647
Total	52, 444
Per cent of total of other	91
Imports:	
Free	\$10, 957, 761
Dutiable	414, 823
Total	11, 372, 584
Per cent free	96

After July 1, 1906, this trade is to be assimilated to the coasting trade.

Mr. CHAMBERLAIN. I should like to call your attention to two matters if I have not already taken too much of your valuable time.

The CHAIRMAN. Proceed. We are interested in your statement.

NORWAY AND SWEDEN.

Mr. CHAMBERLAIN. That is the application of this indirect method to Sweden and Norway. Our trade with Sweden and Norway directly is insignificant. The tonnage of the vessels that entered was only 36,588 tons, and of that 9,000 was national tonnage. There was not any American tonnage at all coming from there. Of course, Sweden and Norway would not have the slightest difficulty in supplying that 27,000 tons of British, German, French, or other ships. They could fill it up very easily. The imports from Sweden and Norway amounted to less than \$5,000,000.

SWEDEN AND NORWAY.

Vessels:	
National	9, 012
Other	27, 576
Total	36, 588
Per cent of total of other	75
Imports:	
Free	307, 079
Dutiable	4, 668, 155
Total	4, 975, 234
Per cent free	6

Sweden and Norway stand in a peculiar situation to any policy of discrimination. While only 9,012 tons Swedish and Norwegian enter the United States in direct trade, in indirect trade 1,714,139 tons are Swedish and Norwegian. The indirect discriminating project would thus hit Sweden and Norway practically as much as the comprehensive scheme of discrimination, and would be relatively more severe than on any other country, for it would amount almost to a severance of commercial relations.

Senator LODGE. May I ask you a question at this point without disturbing you?

Mr. CHAMBERLAIN. Certainly.

Senator LODGE. Do you not consider that the treaty provisions, as a rule, apply to the indirect voyage as well as the direct?

Mr. CHAMBERLAIN. In nearly every case they specifically say so.

Senator LODGE. Exactly. I think the British treaty of 1815 is the exception.

Mr. CHAMBERLAIN. That is peculiar. That is somewhat exceptional.

Senator LODGE. That is exceptional. I merely wanted to confirm my own view.

Mr. CHAMBERLAIN. The French treaty is somewhat peculiar.

Senator LODGE. Practically you would have to abrogate all the treaties to reach the indirect voyage?

Mr. CHAMBERLAIN. Yes; I should say so. I read them through only a few days ago, and I do not recall any of any consequence except those two. All the South American treaties are that way.

Senator LODGE. Yes.

Mr. CHAMBERLAIN. The Chinese treaty is rather peculiar, at any rate, and I can not speak with certainty about it. But what you say is certainly true of three-fourths of them.

SPECIAL RELATIONS WITH CUBA.

The situation with Cuba is very exceptional. What I am going to say on that I submit with considerable diffidence, and I want to say right here I am not speaking, you know, for the Department of Commerce and Labor. Secretary Metcalf authorized me to come here and lay before the Commission any information I might have or that you might ask for, but I am not speaking for him. I think he did not get the invitation—he had not at 11 o'clock—to come here.

The CHAIRMAN. It must have been an oversight. It was sent to him Tuesday.

Mr. CHAMBERLAIN. The imports from Cuba consist of \$62,942,790 worth, of which only \$3,114,807 are on the free list—only 5 per cent—and that is true under the recent treaty with Cuba as well as before. Of course that is because it is almost all sugar and tobacco. In the case of Cuba you could, of course, apply that scheme of having a lower duty because there is practically no free list. The free list does not exist so far as Cuba is concerned.

The tonnage of vessels that entered from Cuba was 1,823,310 net tons. Of that 725,896 was American, 101,527 was national and the balance, or 55 per cent of it, 995,887, was of other nations, to a very great extent the Norwegian vessels that I mentioned a moment ago, and Swedish; also some vessels that come up from South America; some vessels that come from Europe indirectly—that is, their ultimate destination is the United States. They go to Cuba or to Mexico and then come to the United States afterwards. They do not always do that, but often they come to the United States. We, at all events, usually insist on their paying the 6 cent rate tonnage tax, and we usually insist on their having bills of health and all that sort of thing.

Cuba is not a shipbuilding country. The indirect discrimination proposition, so far as nonshipbuilding countries are concerned, is, in fact, an effort to apply the coasting-trade laws of the United States to foreign nations and to get them to agree to it. Now whether they will or not is a matter that we need not discuss at all. It seems to me it is self-evident that they would be extremely reluctant to do so. But we need not consider any of those matters so far as Cuba is concerned.

The quasi extension of our coasting laws to Cuba would be a com-

mercial possibility, if Cuba would agree, and would be open only to some of the objections to any project of discrimination. But in the case of Cuba it is probably possible, if Cuba consents, to make a special arrangement covering shipping in the treaty of commerce and navigation, yet to be negotiated. That treaty might contain a provision restricting trade between the two countries to national ships without violation of our obligations to other nations and without raising the general objections to any form of the policy of discrimination. The "Platt amendment" (31 Stat., 897-898), incorporated in the Cuban constitution, establishes special relations with Cuba. As I say, I speak with diffidence on the extent to which those relations might be made, with Cuban consent, the basis of an article restricting to national vessels trade between the two countries in the treaty of commerce and navigation with Cuba, and I refer to the opinion of the Hon. John B. Moore (Columbia University, New York, January 14, 1902), which concludes:

"We have in the case of the United States and Cuba a remarkable example of those special and exceptional relations, physical and political, which, not being estimable simply in terms of commerce, are universally recognized as the surest foundation for the mutual exchange of exclusive advantages; relations, moreover, which are expressed in valid public acts, whose legal effects all nations have acknowledged.

"For the reasons above stated, I am of opinion that the most-favored-nation clause does not stand in the way of the mutual reduction of duties on trade with Cuba."

I think Senator Lodge's committee had Mr. Moore's brief before it some time ago.

Senator LODGE. Yes; that question was considered at the time.

Mr. CHAMBERLAIN. There is in the case of Cuba, and Cuba alone, a possibility of making—

Senator LODGE. It is perfectly clear that the favored-nation clause could not be made to apply in the case of Cuba.

Mr. CHAMBERLAIN. The treaty of commerce and navigation is yet to be negotiated.

The CHAIRMAN. Do you not think it was an oversight, in dealing with Cuba, that we did not undertake to have an arrangement made whereby the products should be conveyed in American and Cuban vessels?

Mr. CHAMBERLAIN. It would have been a very good arrangement for American vessels.

Representative GROSVENOR. I do not know about the Senate side, but we never heard of the suggestion until after the bill was out of our hands.

The CHAIRMAN. It was an oversight.

Mr. CHAMBERLAIN. The treaty of commerce and navigation remains to be negotiated. How the Cubans will feel about it is for them to say.

Representative GROSVENOR. They will say right away that it is an attempt to build up a monopoly in the hands of some conscienceless shipowners in the United States.

Mr. CHAMBERLAIN. We have heard those things before. That is all I have to say, gentlemen, and I thank you for your courtesy in asking me to be here and in bearing with me so patiently.

THE GROUND FOR SUBSIDIES.

The CHAIRMAN. You have argued very earnestly and intelligently against the discriminating-duty plan. Have you any suggestions to make to the Commission that will aid them in solving the problem they have before them, provided they eliminate the discriminating-duty plan from their consideration?

Mr. CHAMBERLAIN. As one of the gallant gentlemen from the Navy Department (Admiral Harrington) said, if you leave that out there is only one thing left.

The CHAIRMAN. That is what we want to get at—your view of it.

Mr. CHAMBERLAIN. I do not see anything else but subsidies. I have always believed, as the members of the Commission know, in free ships, but some years ago I qualified my views to this extent. I do not believe that free ships, as an independent proposition, would give us many ships. The reason why I believe a free ship bill would be desirable is this: I do not think such a bill would do our shipyards any particular harm, because the present registry law does not do them any good. That is the reason why this Commission is meeting here. The present registry law by itself does not do them any good. It can not, except to a very limited extent. I speak of the free-ship policy in the sense in which we all, I think, use it, namely, as applying to vessels in the foreign trade.

I do not know anybody who favors the comprehensive system of letting foreign-built ships into the coastwise trade. In the case of small schooners it is not impossible that under a free-ship law Nova Scotia-built schooners might come in and engage entirely in the foreign trade. I think it is not only possible, I think it is very probable. It would not happen to the great extent that a great many believe. The best authority on schooners that I know is right here in the room, and I think Mr. F. S. Pendleton, of New York, will bear me out when I say as a rule schooners do not engage exclusively in any one branch of the trade. They are in the coasting trade to-day and in the foreign trade to-morrow.

Mr. FIELDS S. PENDLETON. That is correct.

Mr. CHAMBERLAIN. That is as I understand it. Of course a vessel that could only engage in the foreign trade would be considerably handicapped. But still some would do it. I do not think there is any doubt of that whatever.

I have to that extent modified the views I had when I first came to Washington. I thought then that all we needed was a free-ship law. At that time Americans owned under foreign flags perhaps a hundred and fifty thousand tons. Now it amounts to—I will not undertake to say, for I do not know just what the present arrangements of the International Mercantile Marine Company are—but a year or two ago when that organization was formed it practically amounted to upward of 1,000,000 tons. I thought formerly all that shipping, steam shipping, registered under foreign flags, owned by American capital, would avail itself of a free-registry law, and that the American flag would go up over it all. I do not now see any reason in the world why the American flag should go up over any of those ships if the owners had the privilege of raising it; and I do not believe, from my conversation with the individual owners, that any of them would do it. Some of them told me some years ago they would be inclined to take American

registers if the laws could be materially changed in other respects; if, for example, the present requirement that the officers should be Americans could be done away with. I have not the slightest idea that Congress will ever change that requirement, and I do not know of any considerable number of men who will ask to have it done.

THE CHAIRMAN. We have interrogated a good many shipowners and bankers in the different cities, asking if capital would be forthcoming in the event of free ships, and the reply has been in the negative in every case. They say that in view of the fact that it costs so much more to operate under our laws, it would not build up the merchant marine at all.

MR. CHAMBERLAIN. The reason why I am still disposed to believe in that idea is this: This is largely an academical view; I am not giving it to you as a practical matter, because you can see it is not very practical, but I think if a free-ship law were passed and its inefficacy demonstrated, there would be removed one ground of opposition to legislation that is necessary to get results.

REPRESENTATIVE MINOR. Did I understand you to say that in the last fiscal year 31,000,000 tons entered our ports engaged in the foreign trade?

MR. CHAMBERLAIN. Yes, sir.

TONNAGE TAXES.

REPRESENTATIVE MINOR. What were the receipts from tonnage dues?

MR. CHAMBERLAIN. For 1903 it was \$885,841.33.

SENATOR LODGE. How do our tonnage dues compare with the tonnage dues of other countries?

MR. CHAMBERLAIN. They are lower.

SENATOR LODGE. I should like very much to know what the tonnage dues are in foreign countries, or what they average?

MR. CHAMBERLAIN. I will submit some data in respect of the British light dues.

BRITISH LIGHT-DUES ACT.

Following are the essential provisions of the British act (Mercantile Marine Fund, 61 and 62 Victoria) changing the method of imposing light dues in Great Britain and Ireland, which took effect April 1, 1899:

“(1) On and after the commencement of this act the general light-house authorities shall levy light dues with respect to the voyages made by ships or by way of periodical payment, and not with respect to the lights which a ship passes or from which it derives benefit, and the dues so levied shall take the place of the dues now levied by those authorities.

“(2) The scale and rules set out in the second schedule of this act shall have effect for the purpose of the levying of light dues in pursuance of this act; but Her Majesty may, by order in council, alter either generally or with respect to particular classes of cases the scale or rules and the exemptions therefrom.

“(3) Before any order in council is made under this section, the draft thereof shall be laid before each house of Parliament for not less than thirty days on which the house is sitting, and if either house, before the expiration of the thirty days during which the draft has been laid before it, presents an address to Her Majesty against the

draft, or any part thereof, no further proceedings shall be taken thereon; but this shall be without prejudice to the making of any new draft order.

* * * * *

“(6) On proof to the satisfaction of the board of trade that a British ship has during any financial year carried, in accordance with the scale and regulations to be made by the board of trade, with the concurrence of the treasury, boys between the ages of fifteen and nineteen, there shall be paid to the owner of the ship, out of moneys provided by Parliament, an allowance not exceeding one-fifth of the light dues paid during that year in respect of that ship: *Provided*, That no such payment shall be made in respect of any boy unless he has enrolled himself in the royal naval reserve and entered into an obligation to present himself for service when called upon, in accordance with rules to be issued by the Admiralty. The scale and regulations aforesaid may be modified from time to time by the board of trade, with the concurrence of the treasury.

“This section shall continue in force until the thirty-first day of March, one thousand nine hundred and five, and no longer, unless Parliament otherwise enact.

“LIGHT DUES.

“Scale of payments.

“1. One penny per ton per voyage for home-trade sailing ships.

“2. Twopence farthing per ton per voyage for foreign-going sailing ships.

“3. One penny halfpenny per ton per voyage for home-trade steamers.

“4. Twopence three farthings per ton per voyage for foreign-going steamers.

“5. An annual payment in the place of the payments per voyage of one shilling per ton for tugs and pleasure yachts.

“Rules.

“(1) A ship shall not in any year be required to make payments on account of light dues—

“(a) If the ship is a home-trade ship, for more than ten voyages; and

“(b) If the ship is a foreign-going ship, for more than six voyages; and

“(c) If the ship makes voyages during the year both as a home-trade and as a foreign-going ship, for more than ten voyages, counting each voyage made as a foreign-going ship as a voyage and a half: *Provided*, That no steamer shall be required to pay more than one shilling and fourpence halfpenny per ton, and that no sailing vessel shall be required to pay more than one shilling and a penny halfpenny per ton in any year.

“(2) A ship shall not pay dues both as a home-trade ship and as a foreign-going ship for the same voyage, but a ship trading from a port outside home-trade limits, and discharging cargo or landing passengers or mails at any port within home-trade limits, shall be deemed to be on one voyage as a foreign-going ship until she has arrived at

the last port of discharge of cargo or passengers brought from beyond home-trade limits; and a ship trading to a port outside home-trade limits and loading cargo or receiving passengers or mails at any port within home-trade limits, shall be deemed to be on one voyage as a foreign-going ship from the time she starts from the first port of loading cargo or passengers destined for a port beyond home-trade limits.

"(3) The voyage of a home-trade ship shall be reckoned from port to port, but a home-trade ship shall not be required to pay dues for more than three voyages in one month.

"(4) The voyage of a foreign-going ship trading outwards shall be reckoned from the first port of lading in the United Kingdom or the Isle of Man of cargo destined for a port outside home-trade limits.

"(5) The voyage of a foreign-going ship trading inwards shall be reckoned from her last port of lading outside home-trade limits to the last port in the United Kingdom or the Isle of Man at which any cargo laden outside those limits is discharged.

"(6) Dues payable per voyage under this act shall be payable and collected only at ports where a ship loads or discharges cargo or passengers or mail.

"(7) The annual payments shall be payable at the commencement of the year in respect of which they are made, provided that a new vessel shall pay only one penny per ton for each month after the commencement of her first voyage till the first of April following.

"(8) For the purposes of these rules—

"(a) A ship's tonnage shall be reckoned as under the merchant-shipping act, 1894, for dues payable on a ship's tonnage, with the addition required in section eighty-five of that act with respect to deck cargo, or in the case of an unregistered vessel, in accordance with the Thames measurement adopted by Lloyd's Register.

"(b) A year shall be reckoned from the day of the month on which this act commences.

"There shall be exempted from dues under this schedule—

"Her Majesty's ships.

"Ships belonging to foreign governments.

"Sailing ships (not being pleasure yachts) of less than one hundred tons and all ships (not being pleasure yachts) of less than twenty tons.

"Vessels (other than tugs or pleasure yachts) when navigated wholly and bona fide in ballast, on which no freight is earned and without any passenger.

"Ships putting in for bunker coal, stores, or provisions for their own use on board.

"Vessels for the time being employed in sea fishing or in sea-fishing service, exclusive of vessels used for catching fish otherwise than for profit.

"Ships putting from stress of weather, or for the purpose of repairing, or because of damage, provided they do not discharge or load cargo other than cargo discharged with a view to such repairs, and afterwards reshipped.

"Yachts and pleasure boats of under five-ton registered shipping tonnage."

Mr. CHAMBERLAIN. The British cut down their tax very considerably at the time it was proposed to increase ours in this country a few years ago. They cut it down because we had the very conclusive argument, which forestalled any opposition on their part, that they

were already charging in their own ports more than twice, or about twice, what we were charging. At that time, 1899—the law went into effect in 1899—they cut theirs down so that the maximum for a steamer is 32 cents a year and for a sailing vessel 27 cents. They make their tonnage tax to the advantage of the sailing ship to that extent, and ours is just the other way; very considerably the other way.

Senator LODGE. Do you think their provision favoring the sailing ship is wise?

Mr. CHAMBERLAIN. I am rather disposed to believe it is, Senator. I will tell you why. As was remarked by one of the gallant gentlemen from the Navy, the sailing ship is going down and is going down very fast, and anything in reason that can be done to help the sailing ship out I think ought to be done, because up to the present time I think all authorities, naval and mercantile, are agreed that the best-trained officers for steamers are those who have had their education on a square-rigged ship. Congress itself has recognized that. I think it was last year, or the year before, possibly, when you provided for building two sailing ships for the Annapolis cadets for the training of officers. Anything that can be done to help along the sailing ship it seems to me ought to be done.

There is one proposition that I should be very glad to lay before the Commission, and that is the proposition in regard to pilotage in the coasting trade; but I understand you have practically agreed to confine yourselves to the foreign trade propositions.

Senator LODGE. About what is the British tonnage tax?

Mr. CHAMBERLAIN. Twenty-seven cents a year for the sail vessel and 32 cents a year for the steamer. That is the maximum.

Senator LODGE. Ours is 6 cents?

Mr. CHAMBERLAIN. Oh, no. The figures I have stated for the British is for the year. They pay to that extent and no more. Ours is 30 cents.

Representative MINOR. How much do they levy per entrance?

Mr. CHAMBERLAIN. The schedule I have just filed shows the dues in detail. I may say that what they call "home trade" is not exactly like our coasting trade. It includes vessels going from England to Europe within the limits of Brest on the south and the mouth of the Elbe on the north.

Senator LODGE. It is practically coastwise.

Mr. CHAMBERLAIN. Practically; it is in all nautical respects, anyway.

The CHAIRMAN. Ours is 6 cents a ton for five voyages, making 30 cents in the aggregate.

Mr. CHAMBERLAIN. Yes, sir. The British is 27 on the sail vessel and 32 on the steamer.

The CHAIRMAN. So that ours is almost as large as that of Great Britain.

Mr. CHAMBERLAIN. As I say, they cut theirs down recently. The effort was made to get theirs down as nearly as they could to ours. Before the passage of this law a vessel was charged according to the different light-houses that it passed. Each light-house had a charge. I mean the light-houses that were passed constituted the basis of the tax. You see you would have a different rate on almost every voyage except in the case of a regular liner.

Senator LODGE. They have light-house dues also.

Mr. CHAMBERLAIN. These are the light dues.

Representative MINOR. Is there any tax imposed upon our ships abroad that we do not impose upon theirs coming into our ports—harbor taxes, light taxes?

Mr. CHAMBERLAIN. Their systems are different.

Representative MINOR. Is everything embodied in one charge?

Mr. CHAMBERLAIN. I think so, so far as tonnage or light dues are concerned.

Senator LODGE. Port dues and light dues are consolidated?

Mr. CHAMBERLAIN. Yes, sir, tonnage and light dues; but in some ports England still retains local charges in addition. Liverpool I believe does not. Southampton has a small charge. I can not remember just what it is. But if you want any particular information on any particular port, I have the books down at the office, and I can try to supply it at any rate.

Senator LODGE. How is it with other countries?

Mr. CHAMBERLAIN. I have here a statement of the situation in the German Empire on this point, which I will submit.

"The Imperial Government imposes no charges on shipping in ports of the German Empire, such charges being levied by the authorities of the several maritime States of the Empire. The taxes imposed at Hamburg are 12 pfennigs (2.9 cents) per cubic meter (1 ton = 2.8 cubic meters), or a fraction over 8 cents per ton. The light dues imposed at Bremen are 11 pfennigs per cubic meter, or a fraction under 8 cents per ton. These charges are imposed at every entry of a vessel. An express steamship to Hamburg or Bremen, making 12 voyages a year, would thus average 96 cents per ton at the German port of entry, compared with 30 cents at New York.

"GERMAN TONNAGE AND LIGHT DUES.

"Following are the laws imposing tonnage and light dues at Hamburg and at Bremen, Germany. As the trade between the United States and Germany is almost exclusively with Hamburg and Bremen, it is not deemed necessary to consider here the tonnage and light dues imposed at minor German ports.

"TONNAGE DUES AT HAMBURG, GERMANY.

"In conjunction with the burgerschaft the senate has decreed and hereby publishes as law the following:

"SECTION 1. The tonnage dues for seagoing vessels arriving here is to be paid on their net tonnage and shall amount to 10 pfennigs per cubic meter.

"SEC. 2. The foregoing regulation is subject to the following modifications and exceptions:

"I. Half of the tonnage dues, i. e., 5 pfennigs per cubic meter, shall be paid—

"(1) By arriving seagoing vessels, the cargoes of which consist of nothing but coal, cinders, coke, patent fuel, lumber, empty bottles, kindling wood, cement, cement stones, chicory root, roofing tiles, ice, oak bark, oak tan bark, earth, slabs, gypsum, broken glass, herrings, charcoal, lime, limestone, clinkers, bone scum, bone black, chalk,

empty jugs, bricks, kitchen and sea salt, sand, slate, cattle for slaughtering purposes, staves, stones, tarras, clay, ordinary earthenware, peet, trass stones, tufa stones, sugar scum.

“(2) By all seagoing vessels of a smaller tonnage than 120 cubic meters.

“(3) By all vessels arriving here, but not from the sea, that leave seaward with a cargo.

“(4) By all vessels coming from sea, carrying nothing but ballast, provided they leave again with cargo.

“I. Entirely exempt from the payment of tonnage dues are—

“(1) All vessels carrying nothing but ballast, provided they leave here in ballast.

“(2) Vessels newly and entirely built on Hamburg territory, but only for their direct return to this port from the port of destination of their first voyage outward.

“(3) The Hamburg whaling and sealing vessels, provided that on their outward voyage they are only equipped for the catch and it is proven that the incoming cargo consists only of products of their own catch.

“(4) Seagoing vessels which only enter this port for the purpose of repairs in Hamburg yards, provided they at once leave the port without cargo after the completion of the repairs. Yachts, whether belonging to yacht clubs or private individuals, provided they arrive and depart without cargo.

“(5) Seagoing vessels which return to this port on account of drift ice, storm, or average, after they have already paid the tonnage dues for this voyage, provided they again leave with the same cargo.

“(6) Vessels arriving from sea with fish, oysters, lobsters, etc., as well as vessels for the transportation of passengers to and from Helgoland, Fohr, and Norderney, as long and as far as they only serve this purpose.

“SEC. 3. The care for the collection and control of the tonnage dues belongs to the department of indirect taxes.

“Every abridgment of the dues or evasion of the prescribed controls is punishable by fines of from 1 to 50 marks.

“Given in the meeting of the senate, Hamburg, March 28, 1881.”

“*Notice regarding the increasing of tonnage dues and of the tonnage tax for the quays.*

“In conjunction with the burgerschaft the senate has decreed, and hereby publishes as law, the following:

“(1) From July 1 of this year the tonnage dues for seagoing vessels arriving here are to be 12 pfennigs and 6 pfennigs, respectively, per cubic meter net register, and sections 1 and 2 of the revised regulations, regarding the collection of tonnage dues, of March 28, 1881, altered accordingly.

“(2) The tonnage tax for the use of the quays and quay sheds from July 1 of this year shall be 17½ pfennigs, 3½ pfennigs, and 12 pfennigs, respectively, per cubic meter net register, and Nos. Ia, Ib, and III of section 22 of the administration and tariff regulations of the quays, of December 22, 1893, changed accordingly.

“(3) The amounts of tonnage dues according to the tariff, of 10 and 5 pfennigs, and the amounts of tonnage taxes for the quays, of 15, 3,

and 10 pfennigs, heretofore collected, shall in future also be paid by those vessels which present a register issued before July 1, 1895, in accordance with German usage, and which is valid according to the provisions of section 39 of the regulations for the measuring of vessels of March 1, 1895.

“Given in the meeting of the senate, Hamburg, July 12, 1895.”

“*Notice regarding tonnage dues for vessels from German seaports.*

“In conjunction with the burgerschaft the senate has decreed, and hereby publishes as law, that there be added to section 2 of the revised regulations regarding the collection of tonnage dues, dated March 28, 1881, as No. 5 under I.

“For all vessels arriving from sea which bring a cargo taken abroad entirely in German ports.

“Given in the meeting of the senate, Hamburg, December 30, 1895.”

Shipping World Yearbook, 1904 (p. 583, Hamburg), same as above, but after 12 voyages reduced 10 per cent, 24 voyages 20 per cent, 36 voyages 30 per cent.

TONNAGE AND LIGHT DUES AT BREMEN, GERMANY.

“According to an agreement between the Governments of Prussia, Oldenburg, and Bremen to amend the tariff published on June 2, 1877 (Journal, p. 45 ff), for the imposition of light and beacon dues on the river Weser, the amended tariff is hereby added to that which goes into effect on July 1 of this year.

“Agreed to at Bremen in the meeting of the senate on the 25th and published on the 28th of June, 1895.

“*Tariff for the imposition of light and beacon dues on the river Weser.*

“For light and beacon dues on vessels of over 200 cubic meters net tonnage, 10 pfennigs per cubic meter, amended on account of a regulation published by the Government March 1, 1895, concerning the admeasurement of vessels (order on June 20, 1888) so that on the new measurement certificates issued for light and beacon dues for steamers of over 200 cubic meters net tonnage, 11 pfennigs for each cubic meter shall be charged.

“*Additional regulations.*

“The dues for each entrance into the Weser are to be paid but once, and that at the port of the province where, after entrance, the cargo is discharged, or where the first anchorage is made.

“(2) Empty vessels or those in ballast and without passengers, which have entered and which go out again empty or in ballast, without passengers, shall have returned to them one-half of the light and beacon dues paid by them.

“(3) In the assessment of dues on measurement, one-half cubic meter or over is counted as one cubic meter. Smaller spaces are exempted.

“Exemptions from the payment of light and beacon dues are as follows:

“(1) Vessels and water craft of the Imperial German marine and such of the war vessels of foreign States which, according to regulation and in fact, practice reciprocity.

"(2) Vessels which are the property of one of the interested States and which are used in improvements of the river or harbor.

"(3) Vessels which enter on account of accident at sea or other misfortune, account of storms or stress of weather, and which clear without discharging or loading, or without transferring the cargo in part or whole and leave again.

"(4) Vessels which enter on account of having assisted stranded or wrecked vessels, or which return therefrom, if they are not used exclusively for the storage of salvage.

"(5) Lighters, when the lighter vessel or vessel loaded by lighters has paid the light and beacon dues.

"(6) Tugs and towboats, when they are used strictly in the capacity for which they are intended.

"(7) Vessels which are used for coastwise fishing."

MR. CHAMBERLAIN. As will be seen from this statement, Germany does not impose her charges on shipping as an empire. It leaves those matters to the maritime states, and each maritime state does what it sees fit. The charge at Bremen is equivalent to about 8 cents a ton by comparison with our 6 cents. The charge at Hamburg is 12 pfennigs per cubic meter. That is a trifle over 8 cents. The Bremen charge is a little under 8 cents and the Hamburg charge is a little over.

Representative MINOR. That is per trip?

MR. CHAMBERLAIN. Yes; they charge right along.

Senator LODGE. They do not limit it to five trips?

MR. CHAMBERLAIN. No. Most all steamers, as you know, regularly in business, going right along between Germany and the United States, especially the fast steamers, make twelve voyages perhaps a year. Perhaps I should say eleven. They will make eleven. When they go into their home port it is 8 cents a trip—that is 88 cents on eleven voyages. When they come into the United States they pay 6 cents five times and the remaining six voyages are free, so that they practically get the benefit of—let us see—

Senator LODGE. It amounts to nearly double the charge we make on an average?

MR. CHAMBERLAIN. Yes; I should say it would.

Senator LODGE. In the case of fast ships it is more than double, but on the average ship about double.

FRENCH CHARGES.

Representative MINOR. Let us have the facts as to France.

The CHAIRMAN. The entire fund derived from tonnage dues in this country is now given to the Marine-Hospital Service.

MR. CHAMBERLAIN. Yes, sir; and it has been since 1884.

The CHAIRMAN. It does not go into the general Treasury?

MR. CHAMBERLAIN. No, sir. I will submit a statement as to the French tax:

"French taxes on the entry and clearance of vessels are of two classes: First, the 'droits du quai,' or wharf charges, levied by the central Government and corresponding generally to our tonnage taxes; and, second, 'taxes locales,' which are collected at the custom-houses and turned over to the chambers of commerce or other local institutions, to be expended by them on deepening channels and other harbor improvements. These taxes, of course, vary at different ports

and at different times. Thus at Havre the 'droits du quai,' or tonnage dues, under the general law are 1 franc (19.3 cents per ton), and the 'taxes locales' 40 centimes (7½ cents) additional, while at Marseilles the tax is only 1 franc under the general law. The relationship is doubtless accidental, but it is worth noting that the taxes levied on vessels entering French ports, more than half of which are foreign, produce a sum sufficient to pay the general construction and navigation bounties of France (not including mail contracts). Indirectly French vessels are thus repaid their general and local tonnage taxes, and a considerable surplus remains for bounties. The following table, showing the taxes levied on all shipping and bounties paid to French shipping, illustrates the statement:

Year.	Bounties.			Taxes.		
	Construc- tion.	Naviga- tion.	Total.	Taxes locales.	Droits du quai.	Total.
	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>
1896	4, 106, 350	9, 574, 731	13, 681, 081	5, 966, 336	7, 371, 339	13, 337, 675
1895	2, 800, 673	8, 580, 892	11, 381, 565	5, 507, 607	7, 497, 905	13, 005, 512
1894	2, 089, 302	7, 853, 939	9, 943, 241	5, 471, 490	8, 058, 483	13, 529, 973
1893	2, 112, 543	6, 071, 808	8, 184, 351	5, 244, 872	7, 799, 635	13, 044, 507
Total.....	11, 108, 868	32, 081, 370	43, 190, 238	22, 190, 305	30, 727, 362	52, 917, 667

" FRENCH TONNAGE TAXES.

[Paris, December 29.]

"Following is the complete text of the French law imposing tonnage taxes, which went into effect on January 1, 1898:

"ARTICLE 1. Vessels of any nationality, laden wholly or partly, arriving from a foreign country or a French colony other than Algeria, will pay quay dues in the ports of France and Algeria, according to the following scale:

"One franc per ton of the net tonnage if the total number of metric tons of 1,000 kilograms of merchandise landed or shipped exceeds one-half the net tonnage of the ship.

"Fifty centimes per ton if the merchandise landed or shipped is less than one-half and more than one-fourth of the total net tonnage.

"Twenty-five centimes per ton if the quantity is less than a fourth and more than a tenth of the net tonnage.

"Ten centimes per ton if the quantity is one-tenth of the net tonnage or less.

"The quay dues are reduced one-half for vessels landing merchandise when the vessels have arrived from a port within the limits of international coasting trade as defined by the law of January 30, 1893 (ports of Europe and the Mediterranean), and also for vessels loading merchandise for a port situated within the same limits.

"Vessels performing in the same port operations of discharging and loading will be charged separately for each operation according to the above tariff.

"ART. 2. In case of successive calls in different ports, the quay dues will be levied in each port in accordance with the rules laid down in article 1, but in no case can the total dues on the voyage exceed 1 franc per ton on the net tonnage. The rate is reduced to 50 centimes per ton for vessels in the case provided for by paragraph 6 of article 1.

"ART. 3. In calculating the tonnage of the operations each passenger shipped or landed shall be considered as the equivalent of a ton of merchandise; also each head of large cattle, horse, or mule. Each head of small animals shall be counted as a quarter of a ton. Passengers' luggage and the small provisions they may have with them for the voyage shall not be included in the quantity of merchandise landed or taken on board.

"ART. 4. The quay dues in the preceding articles shall be levied in Algeria only on the merchandise, passengers, animals, and vehicles landed.

"ART. 5. Victualing and coaling shall not be considered as commercial operations.

"ART. 6. Article 6 of the law of January 30, 1872, article 7 of the financial law of July 29, 1881, paragraph 1 of article 14 of the financial law of December 28, 1895, are repealed."

Shipping World Year Book, 1904 (p. 586 Havre) substantially the same.

MR. CHAMBERLAIN. The French tax is what they call the droit du quai, 1 franc, 19 $\frac{3}{10}$ cents.

Senator LODGE. Twenty cents.

MR. CHAMBERLAIN. And in addition to that at some ports they have what they call taxes locales that are raised to build up the port, for harbor improvements and wharves, and all those sorts of things. This tax of 1 franc per ton applies all around France.

Senator LODGE. Is that like the German tax?

MR. CHAMBERLAIN. No; it is 20 cents. I should like to qualify that slightly, but I can not do it without going into a whole lot of detail. I have given the law in the paper which I have submitted, and invite your attention to the details.

Senator LODGE. Roughly speaking it is about three times what we charge?

MR. CHAMBERLAIN. Yes, sir.

ITALIAN ANCHORAGE TAX.

I present a statement as to the Italian law on this subject:

"The Italian law of July 23, 1896, imposes an anchorage tax of 1.40 lire per net ton, equivalent to 27 cents, on a steamship entering an Italian port from beyond the Straits of Gibraltar. This tax is imposed at each entry, but may be commuted for a year on payment of three times the tax, or 81 cents. During 1896 the receipts from anchorage taxes were 6,138,987 lire. For the first six months of the new act the bounties to Italian shipping (not including mail contracts amounting to about 9,000,000 lire) were 2,123,698 lire, indicating an annual expenditure of about 4,500,000 lire. The same coincidence is apparent in the Italian as in the French statistics, receipts from anchorage taxes, chiefly from foreign vessels, producing a sum more than sufficient to pay the general navigation and construction bounties paid by the Government to Italian shipping. It is also worth noting that the anchorage tax was increased from 1 lira to 1.4 lire by the act of July 23, 1896, the principal provisions of which increased the bounties to Italian shipping.

“ITALIAN TONNAGE-TAX LAW.

“Following is a translation of the essential provisions of the Italian law, No. 318, of July 23, 1896, so far as tonnage or anchorage taxes are concerned:

“ANCHORAGE TAXES.

“ART. 20. Italian steam vessels and foreign steam vessels assimilated by treaty to Italian vessels, arriving at a port and engaged in commerce, shall pay an anchorage tax as follows:

“(a) One and forty one-hundredths lire per net ton, if from a foreign port.

“(b) Fifty one-hundredths lira, if exclusively engaged in the coasting trade.

“The anchorage taxes above can be commuted for a period of twelve months by paying three times the tax, respectively, imposed by paragraphs (a) and (b).

“ART. 21. Italian sailing vessels and foreign sailing vessels assimilated by treaty to Italian vessels, coming from ports beyond the Mediterranean and engaged in commerce, shall pay the following anchorage taxes:

“(a) Fifty one-hundredths lira per net ton, if the tonnage is 100 tons or less.

“(b) Eighty one-hundredths lira per ton on each ton in excess of the first 100 tons.

“This tax shall hold good for all entries during the year.

“ART. 22. Italian sailing vessels and foreign sailing vessels assimilated by treaty with Italian sailing vessels, entering solely from Mediterranean ports between the Straits of Gibraltar and the Suez Canal, the Black Sea, the Sea of Marmora, and the Sea of Azoff will pay the following anchorage taxes:

“(a) Twenty one-hundredths lira per net ton on tonnage between 20 and 50 tons.

“(b) Forty one-hundredths lira on each ton between 50 and 100 tons.

“(c) Sixty one-hundredths lira on each ton in excess of the first 100 tons.

“This tax shall hold good for all entries during the year. Sailing vessels under 20 tons are exempt from anchorage tax.

“ART. 23. Steam and sail vessels lading or discharging tons of merchandise not exceeding one-fifth or one-tenth of the net tonnage of the vessel shall pay, respectively, one-half or one-fourth of the anchorage tax.

“Vessels lading or discharging a number of tons of merchandise not exceeding one-twentieth of the net tonnage of the vessel shall pay for each ton of merchandise discharged or laden a tax of 5 lire.

“Vessels discharging or taking on cabin passengers solely, in lieu of anchorage tax, shall pay a tax of 14 lire for each passenger disembarked or embarked.

“[Minor provisions in detail.]

“ART. 24. Italian vessels engaged in towing in an Italian port shall pay an annual anchorage tax of 0.50 lira for each indicated horsepower.

“ART. 25. Following are exempt from anchorage taxes;

“(a) All vessels of the Italian navy.

“(b) All Government vessels of whatever nationality.

“(c) All fishing vessels and small vessels carrying passengers or freight from one place to another in an Italian State, and certain small Italian licensed vessels.

“(d) Yachts.”

Shipping World Year Book, 1904 (p. 576, Genoa), substantially the same.

Mr. CHAMBERLAIN. As will be seen, the Italian law is somewhat similar. They charge 1.4 lire—the lira is a franc, of course—per net ton, but they allow a man to commute that by paying three times the tax the first time; that would be 81 cents. Then he does not have to pay it each time.

Representative MINOR. Eighty-one cents per ton for the year?

Mr. CHAMBERLAIN. Eighty-one cents per ton per year, if you want to commute; that is, 81 cents against our 30 cents.

Representative MINOR. This is very valuable information, Mr. Chamberlain.

Mr. CHAMBERLAIN. Thank you. It is pretty hard to get at the Norwegian law.

The Norwegian law has not been translated; but a recognized authority on port charges (Urquhart's Dues and Charges on Shipping in Foreign Ports, London, 1897, p. 336) states that the tonnage and light dues in Norway are 80 öre inward and 50 öre outward per ton on vessels with cargo, or 130 öre on entry and clearance combined, equivalent to 35 cents per net ton. This charge, however, is imposed only on that portion of the vessel's net tonnage which is actually filled with cargo, and is thus a variable charge at each entry. (Shipping World Year Book, 1904, p. 509, Bergen, substantially the same.)

It amounts to 35 cents, which they charge going in and coming out. It amounts at Bergen, for example, to 35 cents per net ton, but they only charge on the part of the tonnage that has cargo in it, and you see you can not get any uniform rule on that. Sometimes a ship is full and sometimes it is not. It is 35 cents a net ton, which carries cargo.

Senator LODGE. On every voyage?

Mr. CHAMBERLAIN. On every voyage. Of course if the ship is in ballast, there is not any charge. If the ship is half full, it is equivalent to half the regular rate.

SPANISH RATES.

The Spanish rates are as follows:

In lieu of the former charges of light, anchorage, loading and unloading, entrance, consumption and pratique dues, a uniform charge is now made of 2.5 pesetas (48½ cents) per 1,000 kilograms (2,205 pounds). Vessels arriving at Spanish ports in ballast are admitted free of all port dues and charges whatever. (Urquhart's Dues and Charges on Shipping in Foreign Ports, 8th ed., p. 375.)

The Spanish unit of measurement is a little short of a long ton, and it is a little more than a short ton. It is 2,205 pounds. It is 48½ cents per ton of weight, as we ordinarily use the term long ton.

Representative MINOR. Every year?

Mr. CHAMBERLAIN. Every time. Every time you put the cargo off that is what you pay.

Representative MINOR. Are those all the laws you have there?

TAXES OF OTHER NATIONS.

Mr. CHAMBERLAIN. No, sir; I have the law as to the Netherlands, Denmark, etc. The Netherlands ports are free and have been free for years. We have, you will recall, what is apparently a reciprocal tonnage tax, exemption law.

Representative MINOR. There is one question I should like to ask right here: Has it been called to your attention that in determining the net tonnage of ships of foreign countries we get the worst of it by the reduction in the measurements from the gross tonnage?

Mr. CHAMBERLAIN. How do you mean? I do not think we get the worst of it if we can help it.

Representative MINOR. There is a standard rule for determining the gross tonnage of a ship. So many cubic feet shall constitute a ton in the measurements of a vessel.

Mr. CHAMBERLAIN. A hundred cubic feet.

Representative MINOR. Yes; a hundred cubic feet.

There is great latitude given in determining the net tonnage of a ship. For instance, take the space occupied by the machinery and by each member of the crew and various other things, which reduces the net tonnage very materially from the gross.

Mr. CHAMBERLAIN. Yes, Mr. Minor.

Representative MINOR. Now, if it should be thought wise to increase the tonnage tax, would you favor the levying of that tax on the gross tonnage?

Mr. CHAMBERLAIN. I will tell you why I would not.

The difference between the net and the gross is the space occupied by the crew in all vessels, and in the case of steam vessels it is the part occupied by the machinery. Now, of course, if you are going to make that tonnage pay a tax, the shipowner will want to make it as small as possible. He will want to make the space small so as to have the tax small. I believe in pretty ample crew space and engine room. If you make gross tonnage the basis, you would be taxing the living rooms of the men and you would be crowding the machinery.

Representative MINOR. We fix the limit of space occupied by a crew aboard our own vessels. We have no interest in foreign vessels. We do that by statute law.

Mr. CHAMBERLAIN. Yes, sir.

Representative MINOR. Testimony came before the Commission at San Francisco to the effect that some French ships, which really ought to show a net tonnage of 4,000, in order to evade this tax were cut down to about 2,500.

Mr. CHAMBERLAIN. Was it not also shown you by the same gentleman—it should have been shown to you if the information came out of the custom-house—that we do not allow that to be done at all. We measure them by our laws.

Representative MINOR. Perhaps you do not raise the question.

Mr. CHAMBERLAIN. The question long ago was raised, and I trust it has been settled.

Representative MINOR. You have them conform to the rule.

Mr. CHAMBERLAIN. I think if they do not conform to the rule our men go on board and measure the ship.

Senator LODGE. We can control that.

Mr. CHAMBERLAIN. Entirely.

Representative MINOR. I understand that, but I had a reason for asking the question. Of course if this tax was levied on the gross tonnage it would operate a little different from what it would if it were on the net tonnage.

Mr. CHAMBERLAIN. Of course. The South American countries do put the charge on gross tonnage, but all the shipbuilding and ship-owning countries, all the maritime countries, accept net tonnage as the basis for taxation and for the reason principally that I just gave you.

Senator LODGE. We tax net tonnage.

Mr. CHAMBERLAIN. We tax net tonnage.

Representative MINOR. We levy it on net tonnage.

Mr. CHAMBERLAIN. As I have said, the Netherlands do not impose any tax, and their ships all come in here without paying any, and they do not pay any at home. There are not any American ships that get the benefit of that arrangement at all. That is under the law of 1884. In my reports for some years back I have always referred to that. So I do not think it is necessary to go into it again. This is one of the most anomalous examples of reciprocity, so called, that I ever heard of. You can see at once how it would work if applied to the whole world.

The amount of the tonnage tax in 1903 was \$885,000, of which American ships paid seventy odd thousand. If we had absolute reciprocity, if the law of 1884 was comprehensive and spread over the whole world, American ships in American ports would get the benefit of an exemption of this seventy odd thousand dollars they paid, and the ships of other nations would get the benefit of—

The CHAIRMAN. Eight hundred and fifteen thousand dollars.

Mr. CHAMBERLAIN. It is about 11 to 1. That would be true not only at this end, but at the other end, too. That is the way it works, taking it by and large. In the case of the Netherlands it is all one way, because there is not an American ship that goes there or that comes from there.

We had that system with Germany for a number of years. I am sorry to say, and it took some time to get it straightened out.

I will read the charges of Austria:

“Tariff of the new port charges, which came in force on the 19th March, 1897, and according to which steamers will pay during a year:

“Forty soldi (about 16 cents) per ton net register on the first and second voyages.

“Thirty soldi (about 12 cents) per ton net register on the third and fourth voyages.

“Twenty soldi (about 8 cents) per ton net register on further voyages.

“This tariff is only for liners, say, for the same steamers calling regularly at Austrian ports during a year. These steamers will pay no dues at other Austrian ports for twenty days, provided they go from an Austrian port to another Austrian port, but do not call at a foreign port. So if a steamer goes from here to Fiume, or vice versa, she pays harbor dues only at one port, but if from here to Venice and

then Fiume, or from Fiume to Venice and then Trieste, she would have to pay again at both Austrian ports the full port charges.

"If a steamer loads any cargo at Trieste for Fiume (or any other Austrian port) she has to pay 15 soldi (about 6 cents) per ton extra charges, even if she proceeds direct from an Austrian port to another Austrian port. It is therefore advisable to keep the same steamers in the Adriatic trade." (Urquhart's Dues and Charges on Shipping in Foreign Ports, 8th ed., p. 4a.)

The trade with Denmark is practically confined to Copenhagen, and in 1896 Copenhagen was made a free port and there are no charges there at all of this nature. The United States has very little trade from the minor ports of Denmark.

GREAT LAKES TRADE.

I told you, Mr. Minor, that the total entries of the United States were practically 31,000,000 net tons. I have here a table which is based only on the net tonnage entered by sea, and in any proposition that deals with the question of a tonnage tax I should be disposed to say it would be desirable to put in a qualification that it applies to vessels entering the United States by sea. First, as a revenue proposition the amount we get from the Lakes is very small, indeed, at any rate. During the last fiscal year we got \$7,460, and almost all of it was paid in a few ports, \$3,061 being paid at Plattsburg, and \$1,369 at Oswego. That was on canal boats which come in with Canada barley and things of that kind. I will submit a table showing the amounts paid at the different Lake ports:

Tonnage taxes at Lake ports, year ended June 30, 1904.

Vessels.			Taxes.	Vessels.			Taxes.
Burlington, Vt.	78	\$189.09	Ogdensburg.	66	\$789.90		
Cape Vincent	13	210.72	Oswego	94	1,369.86		
Cleveland	41	1,041.60	Plattsburg	1,053	3,061.05		
Detroit	1	16.23	Rochester	15	241.92		
Erie	10	284.46	Toledo	2	35.99		
Great Falls	11	21.81					
Newport, Vt.	18	58.56	Total	1,407	7,466.40		
Niagara Falls.	5	145.26					

If you do just what you started to do, or what I think you started to do, and take the total entries by sea, mind you which were 24,697,692, and the total tonnage receipts, \$885,841.33, that is equivalent to an average of $3\frac{1}{2}$ cents for last year. It comes out the same the year before— $3\frac{1}{2}$ or $3\frac{6}{10}$.

BRITISH ENCOURAGEMENT OF BOY SAILORS.

There is one point I do not want to forget which it seems to me gives a principle in legislation that would be well worth the attention of the Commission, and that is this point of the British law which went into effect in 1899—their new light-dues law:

"On proof to the satisfaction of the board of trade that a British ship has during any financial year carried, in accordance with the scale

and regulations to be made by the board of trade, with the concurrence of the treasury, boys between the ages of fifteen and nineteen, there shall be paid to the owners of the ship out of moneys provided by Parliament an allowance not exceeding one-fifth of the light dues paid during that year in respect of that ship: Provided, That no such payment shall be made in respect of any boy unless he has enrolled himself in the Royal Naval Reserve and entered into an obligation to present himself for service when called upon, in accordance with the rules to be issued by the Admiralty."

Senator LODGE. They collect this money and then give it back.

Mr. CHAMBERLAIN. They give back one-fifth.

Representative MINOR. I am glad to know it.

Mr. CHAMBERLAIN. That law will last until the 1st of March, 1905. Whether it will last longer than that, I do not know. I say there is a principle there. In point of fact, that law has not worked very well, because in the opinion of some British shipowners the regulations of the British Board of Trade have made it so that it costs more to carry the boys than the ship gets out of the refund; so they do not use it to any great extent. The principle is there, which is, as I say, entitled, it seems to me, to some consideration, and the principle, of course, can be made effective if you gentlemen see fit to make it so, and if it is made effective I do not see on what grounds any foreign nation could make any considerable objection to it. There is no question of treaty in that.

Senator LODGE. No.

Mr. CHAMBERLAIN. That is a straight-out defensive proposition that any nation has a right to make.

Senator LODGE. Certainly.

Mr. CHAMBERLAIN. They have done it.

Senator LODGE. I am very glad to know that. It is an important precedent.

Representative MINOR. While you are on your feet, and as you are considered an authority, how are Canadian bounties paid?

Senator LODGE. They pay bounties to their fishermen.

Mr. CHAMBERLAIN. Part of it goes to the men and part of it to the vessel.

Representative MINOR. Where does it come from originally?

Mr. CHAMBERLAIN. It came originally from the United States.

Senator LODGE. The five millions of the Halifax award.

Mr. CHAMBERLAIN. They spend the interest on that.

DISCRIMINATION AND SUBSIDIES.

Senator MARTIN. As I understand you, you are of the opinion that the statute providing discriminating duties in favor of American ships, which was enacted in the early period of our history, was intended as a retaliatory measure against discriminations made against us by foreign governments?

Mr. CHAMBERLAIN. That is the conclusion I have reached from reading what Thomas Jefferson, John Quincy Adams, Henry Clay, a committee of the Senate, and other authorities whom I have quoted said at the time.

Senator MARTIN. From sources of information you have concluded that it was intended simply for retaliation to meet discriminations which had been made against us.

Mr. CHAMBERLAIN. Yes, Senator.

Senator LODGE. When Hamilton discussed the question of the encouragement of American shipping he did not say anything about discriminating duties, but he advocated bounties in the whale fisheries.

Senator MARTIN. It was simply a method to overcome discriminations against us by foreign governments.

Senator LODGE. To bring about these treaties.

Mr. CHAMBERLAIN. That is precisely what it was done for, and it did it in a very short time.

Senator MARTIN. Notwithstanding these treaties, are we not in exactly the same position now? Have you not demonstrated by your talk here to-day that we are being discriminated against by foreign governments now?

Senator LODGE. No.

Mr. CHAMBERLAIN. How?

Senator MARTIN. In port charges, bounties, etc.

Senator LODGE. They pay the same on their own ships.

Mr. CHAMBERLAIN. They are imposed on the national ships as well as on foreign ships.

Senator MARTIN. Subsidies constitute another form. Do you not consider that by subsidies they are putting our ships at a disadvantage.

Mr. CHAMBERLAIN. Of course they are; but they have a perfect right to do it. So have we.

Senator MARTIN. They may have a perfect right, but is there not as much reason for our retaliating now?

Mr. CHAMBERLAIN. Permit me to ask why do you not retaliate, then? Retaliate in kind.

Senator MARTIN. What I want to get at is whether there is not the same inducement now to do so?

Mr. CHAMBERLAIN. Retaliate, and retaliate right out of the Treasury. That is the only way I can see to do it. The reason why I am for subsidies is this: I am not for subsidies as a purely commercial proposition at all. Though it is not a matter of any consequence what my economic beliefs are, I would not stand for government aid one moment except as a proposition of national defense. That is the whole strength of the proposition from Jefferson's time. That is the only reason I can see why any Democrat can vote for it, and as such a proposition—

Senator MARTIN. You misunderstood me entirely. I do not propose to go into any discussion of which is the best remedy, or which is Democratic or which is Republican.

Mr. CHAMBERLAIN. I did not mean to get into it either.

Senator MARTIN. What I want to get at is whether or not the conditions are not the same now substantially as they were when we felt it necessary to pass the discriminating duty statute; whether or not there are not such discriminations made by foreign governments to our detriment as to call on this Government to meet them.

Mr. CHAMBERLAIN. They are not the same kind of discriminations.

Senator MARTIN. You do not consider the subsidies given by other countries a disadvantage to our ships?

Mr. CHAMBERLAIN. Of course they are, but they are not, Senator, a discrimination against our ships as I understand the word "discrimination."

Senator LODGE. They discriminated against us specifically then. They shut us out of the West Indian trade.

Mr. CHAMBERLAIN. Altogether?

Senator LODGE. Now they do not discriminate against us. They give a subsidy to their own ships, which puts them at an advantage as against the rest of the world. But it is not directed particularly against us.

Senator MARTIN. It takes away the principle of equality.

Senator LODGE. That is quite true.

Senator MARTIN. And the equality of opportunity. It is therefore a discrimination against foreign ships, as I understand. It is just as much a discrimination to give a subsidy as it is to impose a discriminating tariff. It is an advantage given by the laws of their country to their own ships.

Mr. CHAMBERLAIN. Of course you may say that it works in the same way, but the principle involved—

Senator MARTIN. It is the same thing in effect.

Mr. CHAMBERLAIN. The principle involved is quite different.

Senator MARTIN. To my mind it is the same thing in effect.

Mr. CHAMBERLAIN. Taking the results in the number of ships and all that sort of thing, it may work that way, but in principle I submit it is quite different.

Senator MARTIN. You think, then, that the subsidies the foreign governments give to their own ships do not call for any retaliation on our part?

Mr. CHAMBERLAIN. I think they call for the retaliation of a subsidy if you want American ships. It calls for the kind of retaliation that is possible through giving them a subsidy. But I do not think—

Senator MARTIN. You do not think it calls for any retaliation except a subsidy retaliation?

Mr. CHAMBERLAIN. I do not see how otherwise it could be made effective—

Senator MARTIN. If I understand you, the only kind of retaliation that would be permissible would be a retaliation in kind—a subsidy retaliation.

Mr. CHAMBERLAIN. I beg pardon. I think I stated at the outset that if the thirty-one treaties were abrogated there would be thirty-one different ways, perhaps, which retaliation could assume. Switzerland can not get at our ships if she wants to retaliate. Some will not want to, very likely. If they want to, they may not all retaliate on shipping. They will do it in some other way.

Senator MARTIN. But we must be limited to the one way, the subsidy.

Mr. CHAMBERLAIN. Argentina will do it in another way.

Senator MARTIN. I understand your proposition. They can retaliate in a hundred ways, but we must be limited to a subsidy.

Mr. CHAMBERLAIN. Not a bit, sir. If you put on a discriminating duty, you bring into operation still another factor; then they will retaliate in whatever way is suitable to their special interests.

Senator MARTIN. I have no further questions.

The CHAIRMAN. We are very much obliged to you, Mr. Chamberlain.

STATEMENT OF HON. W. S. SHALLENBERGER, SECOND ASSISTANT POSTMASTER-GENERAL.

The CHAIRMAN. We have with us this morning General Shallenberger, who represents the Post-Office Department.

I think the Commission would be pleased to hear from you, General Shallenberger, specifically in reference to the law of 1891, which provides mail subventions, as to how it is working, and your views in reference to its enlargement, with a view of establishing new lines of steamships. Of course we do not wish to limit you to that topic. You may discuss any phase of the question you see proper.

Mr. SHALLENBERGER. Mr. Chairman and members of the Commission, I regret that I did not receive notice of this meeting until I had left the Department on the evening of the 23d, and since have not had access to the files of the Department, nor have I had opportunity to confer with the Postmaster-General as to his personal views. I received an oral message from him desiring that I should represent the Department here this morning, and very briefly I shall call your attention to the points you have suggested, and possibly to a few others.

FAVORS LAW OF 1891.

I am in favor of the retention of the law of 1891 and of its possible modification, dependent largely upon what the action of the Commission shall be in other directions. I do not believe that what may be called a "mail-service act" alone might provide adequate protection for American shipping. I think some have expressed that view. I do not hold that opinion. The mail service is one that is governed or controlled largely, if not wholly, by the relative speed of vessels. Therefore, only a limited number can be benefited by any mail-service act, as I see it.

We should have some legislative action which will give to us the selection of at least one line of steamers to each of the principal ports of the world.

At present we are limited in the application of this law to service on seven different routes, only one of these being to trans-Atlantic ports. The large proportion of our foreign mail service is with trans-Atlantic ports, both in the weight of letters and of prints. The American Line, the only line under American registry, is now inadequate, and in the near future will become more and more inadequate properly to perform the mail service between this country and foreign countries.

MUST DEPEND ON FOREIGN LINES.

Indeed, since the recent contract of the English Government with the Cunard Line, we are confronted with the probability in the future of finding it almost impossible to forward our mails from this country by any other line than the English and the German lines. Why? Because under a practice which has been so long established and under a demand which is so importunate on the part of our merchants and tradesmen, we must permit them to send their letters by that means of communication which will reach the destination quickest. They may especially address all their letters to go by the English line,

and if this immense subsidy which has recently been granted the Cunard Line becomes effective and the speed of those vessels increases substantially over what it is to-day, we may find that from one to two days will be gained in the arrival of our mail if sent from New York by the British rather than by the American Line.

You will discover by reference to my report of this year that we have certain English and German steamers which have a little advantage in speed over the American Line steamers, even the *St. Louis*, between New York and London. We give preference always to the American Line, whose day of sailing is on Saturday, the same as the Cunard Line.

I may say that England and other countries in dispatching their own mails give still greater preferences to their ships than we do to ours. But, observing as we have always done, the rule which sends mail by the quickest line, we regret to give much preference to an American line over a foreign line in dispatching mail. Hence it is that on the Pacific coast, while we have very good service now in vessels of American registry, we do send a good deal of mail by the Empress Line to Japan and China, and of late the people of the Northwest are demanding that we forward a greater proportion by that line, reaching Japan, as they say, several days earlier.

MORE DIFFICULT EVERY YEAR.

This situation is growing upon us because almost every year England or Germany is projecting larger and faster vessels. We have not been able, by any advertisement which we have issued, to secure mail service under that act from any port in the Northwest to Japan and China, the conditions not being so favorable as they are on the Atlantic. The conditions are such as to make it more expensive to cover the longer distances across the Pacific than on the Atlantic.

I see no way to extend the mail service except by a modification of the present law, dependent largely upon what is done by your Commission in reference to general traffic. If I could see at present in sight any legislation which would give to our American shipping the same protection that foreign shipping has—protection in the construction of its vessels, in the operation of those vessels on the sea, in the selection of the personnel of those vessels—then I would say, “We now may talk about mail-service pay in comparison with the English mail-service pay or the German mail-service pay.”

But until we have some general protection for our shipping, we are not upon an equality and can not talk together as to the relative pay under the American act of 1891 and the pay under the recent contract with the English line. If in this country we can have labor in building and operating ships engaged in foreign trade protected we will find it quite easy under this act to get mail service to any port of the world.

I want not only the act of 1891 continued on the statute books for mail service, but I would be especially gratified to recommend a modification of that act in connection with other measures which will give us vessels of freight-carrying capacity to the various ports of the world. I believe that the communications between this country and foreign countries, and especially our closed diplomatic pouches, should be carried in American vessels as far as possible.

We find that other nations are very jealous of the manner in which they send their closed diplomatic pouches. England does not intrust her closed diplomatic pouches to our mail service. She sends them by her own steamship line, and from New York to Washington by her own messenger. Now, that is only a little illustration of the jealousy with which great nations guard these important communications.

FAST SHIPS FOR WAR.

A nation like ours, having such a controlling voice in the affairs of the world, it seems to me, should spend any sum of money which is necessary to put its Navy in a position where it will have adequate facilities to increase and supplement its forces by auxiliary cruisers, possible under a mail-service act.

If we can have that class of vessels for the mails, they give adequate protection to the Navy and adequate protection to the Government in its dealings by mail with foreign governments. As we control a monopoly of first-class mail by land, I think we should have legislation so that it will become possible for us to have a line of vessels to all the leading ports of the world, supported by suitable postal and admiralty subventions together.

Then in addition to that we should like to have adequate protection for all shipping, so that we could utilize vessels which would not be adapted to auxiliary-cruiser service. We would use them between ports where speed was not specially desirable.

Representative MINOR. If the Post-Office Department had authority, under legislation which Congress might enact, to contract for mail service with vessels of so slow speed that they could carry cargoes, you would do it, would you not?

Mr. SHALLENBERGER. Undoubtedly; if they supplied all needs for postal purposes, and that would still leave a large amount of shipping uncared for.

LINES TO SOUTH AMERICA.

Representative MINOR. If we were to establish lines to South America and Australia, or other countries to which we have not very good mail facilities of our own, and should fix the limit of speed so low that a cargo carrier might carry the mail, you would, if the Post-Office Department had the authority, contract with those vessels for the carriage of the mail?

Mr. SHALLENBERGER. We would scarcely feel like doing it because we would have to show some postal necessity for the expenditure. We could not apply the money to a vessel not carrying the mails, and we could not have a vessel carrying the mails if another vessel under foreign flag would deliver them quicker. We would be limited in the application of the fund.

Representative MINOR. I understand that in the trade across the Atlantic we would have to compete with the fast steamers; but in establishing new lines where there are no foreign lines the putting on of steamers of less speed than those which cross the Atlantic would answer the purpose for carrying the mail as well as cargo?

Mr. SHALLENBERGER. I answer yes to that question. I should however say that there might soon be foreign vessels of greater speed

to those ports. We would select the package-service vessels, and not the others, for mail purposes. We could scarcely make the appropriation available for subsidizing vessels of slower speed and of great carrying capacity.

FOREIGNERS OF LOW SPEED.

The CHAIRMAN. As I understand, the foreign vessels carrying the mails to South America are vessels of very low speed, as a rule?

Mr. SHALLENBERGER. Very low speed, as a rule.

The CHAIRMAN. Supposing we should enlarge the postal subvention act so as definitely to provide for a line, say from the United States to Brazil, putting the speed at 14 knots. Do you think it is feasible for us to do that and establish a line in that way?

Mr. SHALLENBERGER. I think so. That line, however, would be limited in capacity. And in the growth of our manufactures and exports, would that line carry to Brazil all that had to be carried? If not, foreign ships would.

Representative MINOR. The theory is that the mails going there direct from our ports would facilitate trade.

Mr. SHALLENBERGER. Unquestionably; but the more you build up trade for the foreign ships to carry the more they will come in.

Representative MINOR. We will try to fix that.

Mr. SHALLENBERGER. I shall be glad to try to answer any question which any member of the Commission may wish to ask.

The CHAIRMAN. I think some members of this Commission have had it in their minds that we might, by making more liberal provisions than the act of 1891 makes, the appropriation under which I think was cut down one-fourth or one-third from the original proposition——

Mr. SHALLENBERGER. About one-third.

The CHAIRMAN. We might be able to establish lines of comparatively slow steamships, say, 10 to 14 knots an hour, to a good many points and in that way do something, and a very important help to our merchant marine. I think no member of the Commission has worked it out, but it has seemed to us that it was a feasible thing to do.

I will say here that among all the gentlemen who have appeared before the Commission and given testimony, some objecting to subsidies and others to differential duties and others to free ships, etc., we have not yet found a man who did not think it would be a good, wise plan to enlarge this act and expend more money in this way.

TIME TO ACT NOW.

Mr. SHALLENBERGER. I agree heartily with that last statement, and it seems to me that at this particular time it is almost an imperative duty to extend this mail-service act. We are confronted now by a condition on the Atlantic, to which I have just referred, which will very soon make it difficult indeed for us under this act to keep the mails in American vessels.

Senator MARTIN. You spoke of some enlargement of the present act. I have not understood the particulars in which you think it advisable to enlarge it.

Mr. SHALLENBERGER. The act provides, as most of you gentlemen know, for vessels of the first class, with a certain speed, a payment of

\$4 a mile on the outward voyage for every trip; for vessels of the second class, \$2; vessels of the third class, \$1; all of which are available as auxiliary cruisers. Then for vessels of the fourth class, which are not built under these particular specifications and which would not be available as auxiliary cruisers, 66 $\frac{2}{3}$ cents per mile of outward voyage.

Those rates have not been sufficient to command adequate service. We have not been able to secure any on the Pacific until in quite recent years. We have a line now to Australasia. We have not been able to secure a line to China or Japan or Manila, and but for our very satisfactory although expensive transport service we should have been seriously handicapped in our communication with Manila.

Senator MARTIN. Have you formulated in your own mind any scale of compensation which would be likely to enable you to establish these lines which you say are not practicable under the existing statute—say, lines to South American countries and the East—Japan and China?

Mr. SHALLENBERGER. No, I have not; and I would only do it when it was desired to be a substitute for any and all other arrangements that could be made.

The CHAIRMAN. We are much obliged to you.

A MEMORIAL AGAINST DISCRIMINATING DUTIES.

The CHAIRMAN. There have been forwarded to the Commission the views of commercial organizations of the central northwest on the subjects to be considered by the Commission, and also some papers bearing on the Isthmian Canal trade, which will be printed in the record.

The papers referred to are as follows:

REPORT OF THE CHAIRMAN OF COMMITTEE ON MEMORIAL CONCERNING MERCHANT MARINE TO THE CHAMBER OF COMMERCE.

ST. PAUL, MINN., *September 30, 1904.*

Your committee, to whom was referred the proposed memorial to Congress regarding our marine interests, with special reference to discriminating duties prepared by Hon. F. C. Stevens, would respectfully report that—

The people of the Northwest realize most fully the necessity for some proper and efficient aid to restore our merchant marine to its former position in our foreign trade, and will do all in their power to promote and sustain intelligent effort for this end, not only because of patriotic motives, but also for our own material advantage.

We heartily indorse the argument of the memorial against discriminating duties, apprehending danger to our best interests from any effort to enforce them effectively. As to the proper and best course to pursue in the attainment of our desire we are in some doubt, but we commend the suggestions and recommendations of the memorial regarding the defense of our agricultural interests from any possible hostile discrimination by Great Britain against them as worthy of most careful consideration.

We further recommend that the memorial, with the report of our

action upon it, be sent to our Representatives in Congress, and that the chamber invite other commercial bodies in the Northwest to take similar action in our common interests.

Adopted October 6, 1904.

For the committee:

DANIEL R. NOYES, *Chairman*.

MEMORIAL OF THE ST. PAUL CHAMBER OF COMMERCE.

Hon. JACOB H. GALLINGER,

*Chairman of Commission to Investigate Condition
of the Merchant Marine of the United States.*

SIR: We submit to you, and through you to your Commission, for your careful consideration, the following memorial as representing the interests and views of the commercial organizations of the Central Northwest, upon one of the subjects to be considered by your Commission.

Yours, respectfully,

LUTHER S. CUSHING,
President.

J. W. COOPER,
Vice-President.

KENNETH CLARK,
Vice-President.

BENJ. F. BEARDSLEY,
Secretary.

MEMORIAL OF THE COMMERCIAL ORGANIZATIONS OF THE CENTRAL
NORTHWEST TO THE JOINT CONGRESSIONAL COMMISSION TO INVESTI-
GATE THE FOREIGN MERCHANT MARINE OF THE UNITED STATES.

The commercial organizations of the Central Northwest ask leave, through this memorial, to present their views upon the proposition to assist our merchant marine in foreign trade by means of discriminating duties in favor of goods imported in registered vessels of the United States.

It is now conceded that such a plan would cause the abrogation or material modification of about 30 commercial treaties or conventions now protecting the commerce of this country with the leading nations of the world. It must be expected in the future, as has been almost uniformly the case in the past, that such action on the part of our Government would promptly be met by retaliation and discrimination against our trade, products, and people on the part of the nations injuriously affected and whose conventions with the United States must be annulled. It would not be left to our authority to choose the method of hostile action. That must be expected which shall inflict the greatest damage upon the interests of this country with the least possible to be suffered by the retaliating nations.

FOREIGN COUNTERVAILING ACTION.

Countervailing tonnage, port and light dues, and hostile tariff rates against our products could easily overcome any anticipated advantages to our ships by the legislation under contemplation. It is probable

that our goods, competing with the domestic products of any nation or with those not subjected to any discrimination, would be so embarrassed by additional charges and burdens as to materially injure our export trade. This condition would cause distrust and distress in other branches of our national industries and would conduce to widespread injury to all business. Our shipping would not be benefited, because the foreign countervailing charges against our ships and against our export cargoes in American ships would more than equal any of our own discrimination upon a comparatively small volume of imports. Not more than 4,000,000 tons of our imports would probably be affected by our favoring tariffs, while 30,000,000 tons of our exports would be subjected to hostile foreign action. It is manifest that such a plan would not encourage the construction and operation of American ships, and it is fraught with great possibilities of injury to all of our national interests.

INDIRECT DISCRIMINATING DUTIES.

It is reported in the public press that the plan most favored is to provide for a discriminating duty against goods imported into this country in vessels not under the American flag or of the country where the products originate. This is designed to compel our imports from countries having little or no foreign navigation to be carried in American vessels, and would chiefly affect the products from some of the West Indies, Central and South America, and parts of Asia, Africa, and East Indies.

Until treaties or conventions shall so provide, there is no obligation on our part to allow vessels of foreign nations to transport goods to this country from any other ports except their own. If commercial agreements or conditions unjustly repress American commerce or shipping, then some governmental action should be invoked to provide a remedy, unless such action would be likely to produce greater damage in some other direction. Wherever there is a choice of evils, the lesser must be endured or remedied in a way which shall be less harmful than the injury redressed.

The Bureau of Statistics shows the following imports into the United States for the fiscal year ending June 30, 1904, from the ports of the world to which these indirect discriminating duties would chiefly apply:

Dutiable imports.

	Tons.
From Asia, about	750,000
From Africa, about	45,000
From East Indies, about	350,000
From West Indies, about	1,800,000
From Central America, about	10,000
From South America, about	150,000

These imports were mostly brought to the United States in vessels under the following flags: Great Britain, United States, Germany, France, Norway-Sweden, Belgium, Italy, Netherlands, and Japan. Sea imports from British North America, Mexico, and Europe are now transported mostly in vessels of the country of their origin or of the United States, so the proposed measure would not apply to them to any extent.

NO DISCRIMINATION ON NONDUTIABLE GOODS.

The nondutiable goods could not be subjected to any discrimination unless some additional tariff would be imposed on them for the purpose of providing it. This would mean that a tax must be placed upon tea, coffee, spices, drugs, rubber, cocoa, cotton, copper, fibers, block tin, hides, skins, and tropical fruits not now taxed, and that a much higher tariff must be made upon iron ore, coal, coke, plaster, salt, and lumber, in order to insure a sufficient differential to attract new American tonnage. It is not probable that Congress would take any such action. If the American people have not favored the imposition of such tariff for the purpose of extending their export trade by means of reciprocal trade agreements with such producing countries, it seems unlikely that similar action would now be permitted for the purpose of helping our merchant marine, when by so doing vast complications and evils would arise adversely affecting other foreign and domestic trade.

POSSIBLE BENEFITS.

There would then remain, subject to such discriminating duties, about 3 million tons of imports, paying annually about \$75,000,000 duties, which, subject to 10 per cent average discrimination, would yield about \$7,500,000 per annum, for the benefit of American shipping. Of these imports, about 20 per cent is now carried in American bottoms, and the same vessels, with some additional drawn from our coastwise trade, could easily transport 50 per cent of this tonnage without the construction of new or additional American ships; and the increase of freight rates would doubtless encourage the acquisition of new tonnage in the foreign nations affected to engage in this profitable business. It is probable that some additional vessels might be constructed in this country to transport the remainder, but it would mean additional expense for cost of vessels, maintenance, and operation over that now paid for the same purposes, which must be met by higher freights, lessened facilities, and higher cost of products transported, or be paid directly or indirectly out of the National Treasury. The possible benefits seem to us to be overbalanced by the many disadvantages bound to ensue.

TREATIES TO BE ABRÖGATED.

The following nations have commercial conventions with the United States covering this indirect trade, providing that their vessels shall have equal treatment with our own as to all imports, from whatever country originating:

Nations purchasing from us during last year.

	Value.	Per cent of indirect trade carried.
		<i>Per cent.</i>
Germany.....	\$213,724,000	11
France.....	85,000,000	4
Norway-Sweden.....	11,506,000	3½
Italy.....	35,714,000	2
Belgium.....	40,842,000	1
Netherlands.....	72,148,000	3½
Japan.....	25,000,000	2

It will be seen that about 26 per cent of this trade is carried by seven nations having conventions allowing it which must be abrogated, and that our exports to those nations last year aggregated \$482,000,000, of which agricultural exports were \$286,000,000; manufactured exports, \$154,000,000; forest, mining, and fisheries, \$42,000,000.

The abrogation of these treaties would greatly disturb foreign trade from all parts of this country, and would likely be followed by some form of retaliation and discrimination against our exports of the nature described elsewhere in this memorial.

GREAT BRITAIN PRINCIPAL NATION AFFECTED.

But the principal nation affected would be Great Britain, which transported during the fiscal year ending June 30, 1904, of our total exports and imports about \$1,320,000,000, or 62 per cent of our total foreign freightage; and it is estimated that British vessels carry about 55 per cent of the tonnage liable to be affected by this proposed discrimination of indirect trade.

Our exports for the fiscal year ending June 30, 1904, to Great Britain and her colonies were as follows:

United Kingdom.....	\$537, 781, 000
British America.....	136, 200, 000
Australia.....	27, 400, 000
British Africa.....	20, 708, 000
British West Indies.....	11, 660, 000
British Asia.....	6, 700, 000
Total.....	740, 449, 000

or nearly 52 per cent of our total exports.

Of these exports, breadstuffs were about \$95,000,000; animal products, \$163,200,000; cotton and manufactures of, \$165,000,000; tobacco, about \$15,000,000; wood and manufactures of, \$25,000,000.

BRITISH STEAMSHIP INTERESTS.

There is now engaged in the indirect foreign trade between the United States and various other nations, not including the United Kingdom itself, 50 British steamship lines, employing about 400 vessels, of more than 1,000,000 tons, earning more than \$60,000,000 for freightage annually. It is doubtful if this traffic be covered by existing treaties or conventions with Great Britain; so that, without any notice to the British Government, Congress could take any action to it which it deems best. But there should first be considered the consequences. The maritime interests of Great Britain are of the greatest importance to the welfare and safety of that Empire, and hostile action against it would be resented by the British Government, people and press, quicker than against any other business interest.

GREAT BRITAIN WOULD RETALIATE.

It is manifest that some defensive retaliatory measures would be at once adopted, which would be so framed as to injure the people and business of Great Britain the least and ourselves the most. Already a way lies open. There has been presented to and is now being discussed by the British people, preparatory to some future action, the

plan of tariff discrimination in the United Kingdom in favor of colonial products as against competing foreign products. This would partially affect the following imports into Great Britain from the United States, as shown by the British Statesman's Year Book for the year 1904, viz:

	Total imports into Great Britain.	Exported from United States.	From British colonies to United King- dom.
Breadstuffs ^a	\$343,526,380	\$72,000,000	.....
Animal products.....	452,639,000	143,300,000	\$85,000,000
Cotton, and manufacture of.....	221,127,900	151,000,000	.....
Wood, and manufactures of.....	135,000,000	25,000,000	.....
Tobacco.....	20,885,000	15,000,000	.....
Fruits, hops, etc.....	50,155,000	18,000,000	.....

^aThis includes 28,439,591 hundredweight of wheat, valued at \$24,195,736, and 3,227,807 hundredweight of flour, valued at \$16,223,384.

POSSIBILITIES OF COLONIAL PRODUCTION.

It is well known that the British colonies have the possible capacity to produce a very large part of such articles as may be needed by the United Kingdom when their resources shall have been developed to the extent of which they are capable. Any discriminating action on the part of Great Britain would abnormally increase the development of such capabilities, especially in Canada, and at the present time would correspondingly lower the prices of our competitive articles. In order to compete against such discrimination prices must be considerably reduced by our producers, with consequent suffering and trouble in the agricultural States now supplying the goods above named for the British markets.

The trade once lost to us and gained by Canada and other colonies, by the development of their resources, can not be held by us or regained after the restoration of commercial peace except at a tremendous disadvantage and sacrifice. Colonial development, abnormally stimulated, will continually plague our competition in the English markets until our domestic growth shall overcome the difficulty.

It is realized that our increasing domestic demand will gradually utilize our domestic supply and production, and that the probably decreasing volume of agricultural exports from the United States to Great Britain in the future will be more than offset by the constantly increasing colonial production.

WOULD INJURE AGRICULTURAL INTERESTS.

These conditions will naturally balance to some degree and will adjust themselves gradually in due time without unusual suffering or losses. But any governmental action which disturbs the natural and gradual course of events will bring disaster upon somebody, and it would seem the classes which would mostly suffer in this case would be the producing agriculturists of our Central West. The proposed action on our part would necessarily array the powerful maritime

interests of Great Britain in favor of the proposed plan of retaliation and discrimination against us at our weakest and most tender point. The course above outlined is that of least resistance for them, and would be of the most immediate and momentous effect against us.

BRITISH MARITIME AGAINST COLONIAL INTERESTS.

As a general proposition, it is for the evident benefit of the vast maritime interests of Great Britain to have access to every port and trade in the world on even terms with every other ship. They must vigorously contend for such privileges, and to be accorded them they must occasionally be obliged to sacrifice some smaller and less influential interest. In this instance the colonial and maritime interests of Great Britain might conflict, and the most important to the nation would be chiefly considered. In the British trade the competition of the agricultural West is with the colonial interests, and that class of our nation, which is at the basis of its strength and prosperity, should not be asked to sacrifice itself for the sake of injury to a foreign business interest which furnishes the best facilities and lowest rates to its best markets in the world outside of its own country.

EFFECTS OF INDIRECT DISCRIMINATION.

We apprehend that the abrogation of commercial treaties and the commencement of commercial warfare would result disastrously to our general commerce, that the prices of our own products and exports would be likely to be depressed and prices of imports for our own use increased, that our consumption would be diminished, labor would be adversely affected, and an injury to all business interests would ensue. We fear that rates of freight would increase and facilities decrease to the nations affected by our differential duties, with a consequent disadvantage to competition there, and that the maritime nations would be incited to discriminate against our ships and goods wherever possible, and our growing trade in the Orient and Tropics might be materially impaired in manifold ways by separate or united hostile action. We believe the retaliation and hostility which would arise would injure our people to a far greater extent than would accrue any benefits to our merchant marine; and a loss once commenced could not be checked, and this injury would necessarily spread to most classes of the country. We therefore trust that no plan of discriminating duties will be recommended by our commission.

EXISTING SITUATION—BEST METHODS OF DEFENSE.

But in considering such matters, it is evident that in the existing situation may be the best possible method of defending the agricultural interests of this country from any possible hostile demonstration by Great Britain against them.

The commercial treaty of the United States with Great Britain was concluded July 3, 1815, and provides as follows:

“ARTICLE 3. No higher or other duties shall be imposed on the importation into the United States of any article the growth, produce, or manufacture of His Britannic Majesty's territories in Europe, and

no higher or other duties shall be imposed on the importation into the territories of His Britannic Majesty's in Europe of any articles the growth, produce, or manufacture of the United States, than are or shall be payable on the like articles being the growth, produce, or manufacture of any other foreign country; nor shall any higher or other duties or charges be imposed in either of the two countries on the exportation of any articles to the United States or to His Britannic Majesty's territories in Europe, respectively, than such as are payable on the exportation of like articles to any other foreign country; nor shall any prohibition be imposed on the exportation or importation of any articles the growth, produce, or manufacture of the United States or His Britannic Majesty's territories in Europe, to or from the said territories of His Britannic Majesty's in Europe, or to or from the United States which shall not equally extend to all nations.

“NO DISCRIMINATING DUTIES ON VESSELS.

“No higher or other duties or charges shall be imposed in any ports of the United States on British vessels than those payable in the same ports by vessels of the United States; nor in the ports of any of His Britannic Majesty's territories in Europe on the vessels of the United States than shall be payable in the same ports on British vessels.

“DUTIES ON PRODUCTION.

“The same duties shall be paid on the importation into the United States of any articles the growth, produce, or manufacture of His Britannic Majesty's territories in Europe, whether such importations shall be in vessels of the United States or in British vessels, and the same duties shall be paid on the importation into the ports of any of His Britannic Majesty's territories in Europe, whether such importation shall be in British vessels or in vessels of the United States.

“This agreement is continued and is now forced by virtue of the convention concluded on the 6th day of August, 1827, between the two nations.”

EXISTING LAWS AS TO DISCRIMINATION.

Congress enacted the following on the 1st of March, 1817, which was reenacted as a part of the Dingley bill, the act of July 24, 1897:

“SEC. 22. That a discriminating duty of ten per centum ad valorem, in addition to the duties imposed by law, shall be levied, collected, and paid on all goods, wares or merchandise which shall be imported in vessels not of the United States, or which, being the production or manufacture of any foreign country not contiguous to the United States, shall come into the United States from any contiguous country; but this discriminating duty shall not apply to goods, wares or merchandise which shall be imported in vessels not of the United States, entitled at the same time of such importation by treaty or convention to be entered in the ports of the United States on payment of the same duties as shall then be payable on goods, wares or merchandise imported in vessels of the United States, nor to such foreign products or manufactures as shall be imported from such contiguous countries in the usual course of strictly retail trade.”

INDIRECT TRADE.

"SEC. 23. That no goods, wares, or merchandise, unless in cases provided for by treaty, shall be imported into the United States from any foreign port or place, except in vessels of the United States, or in such foreign vessels as truly and wholly belong to the citizens or subjects of that country of which the goods are the growth, production, or manufacture, or from which such goods, wares, or merchandise can only be, or most usually are, first shipped for transportation. All goods, wares, or merchandise imported contrary to this section, and the vessels wherein the same shall be imported, together with her cargo, tackle, apparel, and furniture, shall be forfeited to the United States; and such goods, wares, or merchandise, ships or vessels, and her cargo shall be liable to be seized, prosecuted, and condemned in like manner, and under the same regulations and provisions as have been heretofore established for the recovery, collection, distribution, and remission of forfeitures to the United States by several revenue laws.

"SEC. 24. That the preceding section shall not apply to vessels or goods, wares or merchandise imported in vessels of a foreign nation which does not maintain a similar regulation against vessels of the United States."

BRITISH TREATY DOES NOT COVER INDIRECT TRADE.

There is nothing in the agreement now existing with Great Britain which could prohibit Congress giving full effect to section twenty-three above cited, by amending or repealing section twenty-four as above cited, so as to make this statute at once apply to British ships in our indirect trade.

This act was originally designed as a method of defense against the aggressions and unjust practices of Great Britain and other nations, and now should be utilized in the same spirit in which it was conceived and has been continued. We believe that a great injury would result if the United States took the initiative in discriminating against the ships or goods of other nations. But if other nations discriminate against our products there should be a swift and severe retaliation. We should not commence commercial warfare, but if others inflict injuries upon us we must not shrink from vigorously protecting our own interests. If Great Britain takes the initiative and discriminates unjustly and injuriously against our agricultural export trade, then there should be invoked the old rule of conduct laid down by our fathers nearly a century ago to meet similar cases of injustice.

DEFENSE AGAINST FOREIGN DISCRIMINATION.

When any measure to assist our foreign merchant marine shall be framed as a part of it, or as a separate measure to accompany it, there should be provided an amendment to section 24 of the Dingley bill, above cited, so that it shall at once be made ready to give full effect to section 23, to protect any of our national interests against the aggression of maritime nations doing a profitable freighting business with our people by our sufferance. By that means the maritime

interests of Great Britain will understand that any injurious discrimination on the part of that government against our people and goods will result in their exclusion from our indirect foreign freightage. This may or may not check hostile discrimination against us, but it will compel the consideration that there is more than one side to the proposition, and that the injuries which we can and will inflict would counterbalance any possible benefits which that nation might receive by any preferential action against us.

NORTHWEST WISHES TO ASSIST MERCHANT MARINE.

The people of the Northwest realize the necessity for some proper and efficient governmental aid, which shall assist in restoring our national merchant marine to its former position in our foreign trade. If the maritime interests of this country shall lend their influence and assistance as above indicated, or in other potent ways, to protect the agricultural interests of the West, it certainly will be due from the latter, not only on this account, but because of the broadcast and most patriotic national interests, that they render at least equal and as efficient assistance for the upbuilding and protection of the foreign merchant marine.

ISTHMIAN CANAL TRADE.

NEW YORK, *October 10, 1904.*

WINTHROP L. MARVIN, Esq.,

Secretary Merchant Marine Commission, Washington, D. C.

DEAR SIR: in connection with the construction of the Panama Canal there will doubtless be created a large and prolonged demand for American supplies of all kinds, giving employment to a large number of the American steamers now laid up for want of profitable business. An opportunity is therefore available for promoting our shipping through the accomplishment of this great American undertaking, and as the Merchant Marine Commission was created for the purpose of devising means for building up our merchant marine, the undersigned American vessel owners ask for the assistance of the Merchant Marine Commission in securing for American vessels the exclusive privilege of trading between the ports of the United States and the Canal Zone at Panama. If this can be secured through the Panama Canal Commission or the War Department, as was the establishment of the rates of the Dingley tariff in the Panama territory under the jurisdiction of the United States, a recommendation from the Merchant Marine Commission would probably result in an order being issued to that effect, while if Congressional legislation is required, its recommendation in the report of the Commission and the incorporation of a provision in the bill prepared by the Commission to carry out its recommendations would probably assure its adoption.

The Panama Canal Commission and the War Department will probably each agree that the considerations which justify the placing of the rates of the Dingley tariff in force in the Panama Canal Zone also justify the reservation to American vessels of the carrying between the United States and the Panama Canal Zone. So long as the Panama Canal Zone is to be regarded precisely as United States territory in the matter of tariff rates, it should also be so regarded in the matter of shipping.

Trusting that the Merchant Marine Commission will see the matter in the light we have presented it, we remain,

Respectfully, yours,

LEWIS LUCKENBACH.
JAS. W. ELWELL & Co.
MICHIGAN STEAMSHIP Co.,
By JAMES JEROME, *Manager*.
AMERICAN-HAWAIIAN STEAMSHIP Co.,
By G. S. DEARBORN, *President*.
THE NEW YORK AND PORTO RICO STEAMSHIP Co.,
By FRANKLIN D. MOONEY, *Treasurer*.
A. H. BULL & Co.
D. B. DEARBORN.

TONNAGE CONTROLLED BY THE FIRMS SIGNING THE ACCOMPANYING LETTER.

Lewis Luckenbach, 4 steamers of 21,000 tons d. w. carrying capacity, all of which are at present unemployed.

James W. Elwell & Co., 6 steamers of 29,000 tons d. w. carrying capacity, of which 2 steamers of 15,000 tons are at present unemployed.

Michigan Steamship Company, 6 steamers of 27,000 tons d. w. carrying capacity, of which 1 steamer of 7,000 tons is at present unemployed.

American-Hawaiian Steamship Company, 9 steamers of 80,000 tons d. w. carrying capacity.

New York and Porto Rico Steamship Company, 6 steamers of 27,000 tons d. w. carrying capacity.

A. H. Bull & Co., 4 steamers of 12,600 tons d. w. carrying capacity, employed with part cargoes only.

D. B. Dearborn (representing Arthur Sewall & Co.), 12 sailing vessels of 55,700 estimated tonnage capacity, of which 2 ships of 11,000 tons capacity are at present unemployed.

ISTHMIAN CANAL COMMISSION,
Washington, D. C., November 7, 1904.

WINTHROP L. MARVIN, Esq.,
Secretary the Merchant Marine Commission,
Hotel Normandie, Washington, D. C.

MY DEAR SIR: I have to acknowledge the receipt this morning of your letter of the 3d instant with regard to shipment of lumber in American or foreign bottoms, and to say that when we next advertise for lumber I will have a clause put in the advertisement calling for bids for delivery of same both in American and foreign bottoms. That will at once determine whether owners of American vessels can or are willing to carry lumber on equal terms with the owners of foreign vessels, and, if not, what the difference may be.

Very truly, yours,

J. G. WALKER,
Chairman of Commission.

P. S.—Bids for a large amount of lumber will soon be asked for.

J. G. W.

GLOBE NAVIGATION COMPANY (LIMITED),
Seattle, Wash., U. S. A., November 5, 1904.

Hon. W. E. HUMPHREY,
Seattle, Wash.

DEAR SIR: We respectfully invite your attention to the inclosed correspondence in connection with some canal lumber, to be moved in the near future from Puget Sound to Ancon, the American port in the Panama Canal-Zone.

We, with other American companies, competed for carrying this lumber, and have reason to know that the rates named by us were the same as the rates made by the Kosmos Line (German steamers), which line obtained the contract. We failed to secure the business because, of necessity, we required shipments to be made by full cargoes, as customary, while the Kosmos Line agreed to carry broken cargoes.

If you will take the trouble to investigate the number of vessels, both steam and sail now lying idle in the ports of Puget Sound, you will see how advantageous it would have been to the steamship companies to have obtained the Bellingham and Hoquiam contracts. These contracts, however, are small compared with the ultimate amount to be shipped, and the important point is not only to obtain immediate shipments, but also to prevent future shipments from being made in foreign bottoms.

American vessels can not be operated as cheaply as foreign vessels, and therefore, where shipments are to take place between American ports—whether those ports are within the United States proper or in other territory under the American flag—we feel that shipments should be governed by the coastwise laws. The resolutions of Congress postponing to July 1, 1906, the operations of the coastwise laws as to the Philippines was a severe blow to our shipping, and unless vigorous action is taken an effort will be made to prevent application of the coastwise laws to Ancon, and thus allow foreign bottoms to get the cream, if not all, of the canal shipments. A large amount of money has already been invested in Puget Sound shipping, and more is ready if it could find remunerative employment, and we are calling this matter to your attention so that you may be informed concerning the same and be ready to act vigorously in protecting this important industry.

We are advised that goods shipped into Ancon pay the same duties as goods shipped into the United States, and we can not understand why some of the laws of the United States apply to that territory and not others. If the customs laws apply, why should not the shipping? We also believe it is a fact that the Government, in shipping to the Philippines, allows a 10 per cent differential in favor of American bottoms, and yet, in the case of these shipments to Ancon, they have not accepted American bids at the same rates, for we believe the privilege of shipping broken cargoes in the amount called for in these two contracts is not of sufficient importance to justify discrimination against vessels flying the American flag.

One of the first matters to be brought to the attention of Congress will be the report of the Commission appointed to investigate the American merchant marine, and suggesting such remedies as they think advisable, and the evident inclination of the Isthmian Canal Commission to discriminate against our own vessels is a fitting subject of inquiry.

In addition to the communications above referred to, we also inclose a clipping from the San Francisco Commercial News, a shipping paper published daily in that port, which will inform you regarding the views of the editor on this subject, and we feel confident that this article voices the feeling of all American shipowners on the Pacific coast.

We would be obliged for an expression of your views in this matter.

Very truly, yours,

GLOBE NAVIGATION COMPANY (LIMITED),
By G. F. THORNDYKE, *Traffic Manager*.

FROM THE SAN FRANCISCO DAILY COMMERCIAL NEWS.

The Commercial News has been asked "Can foreign vessels carry American merchandise from American ports to ports within the American territory known as the Panama Canal Zone?"

The answer is, they can, and the answer is based on the following telegram, which has not been rescinded:

WASHINGTON, D. C., *August 22, 1904.*

COLLECTOR OF CUSTOMS, *San Francisco, Cal.:*

Until otherwise ordered allow transportation to Ancon in foreign vessels.

LAWRENCE O. MURRAY,
Assistant Secretary Department of Commerce and Labor.

A merchant marine commission scoured the country this year to find out how to revive the American commercial shipping. Foreign vessels can still trade with Guam and the Philippines and the Canal Zone, and duties are collected on exports from the Philippines to the United States and exports from this country to the Philippines. Flesh is made of one noncontiguous territory of the country, fish of another, and fowl of another. The "good fat herring" goes to those who know how to pull the wires so as to direct the profits their way.

GLOBE NAVIGATION COMPANY (LIMITED).
Seattle, Wash., November 5, 1904.

Hon. W. E. HUMPHREY, *Seattle.*

DEAR SIR: With further reference to our letter herein inclosed on the subject of Panama lumber business.

We take occasion to point out to you that foreign steamers are allowed to compete for the business in the face of the fact that there is at the present time, and was at the time tenders were asked for, a very long list of idle American tonnage in this port and vicinity. Almost any of the vessels included in the list could have been secured for the business, and we know at least six of these American vessels competed for the business secured by the Kosmos Line.

Before the marine commission the writer stated if existing conditions continued during the winter of 1904-5 we would witness the greatest aggregate of idle American tonnage ever known.

I inclose a list of American vessels idle in this port and vicinity, which is only a partial list of the aggregate that will be idle by January 1, 1905.

Almost without exception every cargo of grain and every cargo of lumber for foreign ports is being daily loaded in foreign ships, while our vessels lie idle because they can not operate at the low rates.

Yours, truly,

GLOBE NAVIGATION COMPANY (LIMITED).
By G. F. THORNDYKE, *Traffic Manager.*

Idle American sailing vessels on Puget Sound, November 5, 1904.

Name.	Tonnage.	Name.	Tonnage.
Occidental.....	1,409	Jas. Drummond.....	1,415
Maid of Orleans.....	172	J. D. Peters.....	1,030
Salem.....	698	K. Flickenger.....	425
Alvena.....	687	Great Admiral.....	1,401
Alex. T. Brown.....	654	Harvester.....	716
America.....	1,908	Corphene.....	733
Soquel.....	698	Hesper.....	602
Portland.....	468	Aurora.....	1,070
S. G. Wilder.....	557	Guy C. Goss.....	1,430
John Palmer.....	1,080	J. L. Standford.....	861
Alice.....	220	James Nesmith.....	1,632
Golden Shore.....	626	St. Paul.....	1,824
Robert Lewers.....	966	Annie E. Small.....	809
Lyman D. Foster.....	692	J. H. Lunsman.....	952
Snow & Burgess.....	1,528	Balboa.....	651
Laura Madison.....	328	John G. North.....	320
Columbia.....	684		
F. S. Thompson.....	480	Total.....	29,426

Steamships now lying idle on Puget Sound.

Name.	Tonnage.	Name.	Tonnage.
Olympia.....	2,065	Meteor.....	2,301
Victoria.....	3,602	Tampico.....	2,133
Tacoma.....	2,811	Eureka.....	2,122
Roanoke.....	2,854	Senator.....	2,400
Ohio.....	3,488		
Oregon.....	2,335	Total.....	25,120

FOREIGN STEAMERS TAKE TRADE OF LOCAL SHIPS—OWNERS PROTEST AGAINST CARRYING LUMBER TO PANAMA CANAL BY GERMAN COMPANY WHEN AMERICAN VESSELS ARE IDLE.

[From San Francisco Examiner, October 30, 1904.]

The shipowners at this port and along the Pacific coast are up in arms against the transporting of the lumber to be used in the Panama Canal Zone in vessels of foreign registry. The cause of their coming together on Wednesday was the permitting of the steamers of the Kosmos Company, which is a German company, to carry lumber from Puget Sound to Ancon, the American port in the Canal Zone.

A week ago the Bellingham Bay Improvement Company was awarded the contract for the supplying of 2,000,000 feet of lumber by the Isthmian Canal Commission. It was arranged to have the lumber shipped on the German steamers, entirely overlooking the American shipowners, who have numerous vessels lying idle in Oakland Creek and on Puget Sound. The shipowners do not presume to be in a position to bid against the foreign concern, because the sailor on an American vessel receives \$40 per month wages and a sailor on a German

steamer gets \$11 per month. In this case, however, it is not so much a question of dollars as it is the chance to help the local shipowners. The Merchant Marine Commission, which visited this coast for the purpose of investigating the conditions of shipping and find means whereby it might be built up, promised to assist whenever possible. The meeting on Wednesday drew up resolutions setting forth the injustice and invoking aid. A copy will be sent to the Representatives of the Pacific Coast States at Washington, and their earnest endeavors asked to assist the shipowners.

SAN FRANCISCO, *November 9, 1904.*

The Honorable MEMBERS OF
MERCHANT MARINE COMMISSION,
Washington, D. C.

GENTLEMEN: Under the present ruling of the Department of Commerce and Labor, until further notice foreign vessels will be allowed to carry American goods from American ports to ports in the Canal Zone.

We respectfully call your attention to the injustice of this ruling, on the ground that this trade should be carried exclusively in American vessels. American money, furnished by American citizens, paid for the land included in the Canal Zone. American material, backed by American enterprise and brains, is to build the canal; and American soldiers and marines, in times of necessity, will protect it. The transportation of this material entering the Canal Zone should be given entirely to American vessels, and foreign ships should not be allowed to transport a pound of freight that is loaded at an American port.

Competition among our American shipowners would regulate the rates of freight and keep them at a point that would be advantageous to our Government and allow a small margin of profit to the ship. Here is an opportunity for our Government to help American shipping without a bounty, by simply giving our American vessels the carrying trade of our Government, to which they are surely entitled. Our Government should be the first to offer assistance to our shipping, but it certainly appears to be a fact that foreign vessels get the business.

Your honorable Commission is now in session, investigating conditions upon which to frame a bill for the revival of our American merchant marine. The existing ruling, above referred to and now in actual practice, is in positive opposition to the motive for which your honorable Commission was created.

We herewith request that you immediately and firmly recommend the rescinding of this ruling of the Department of Commerce and Labor, which grants to foreign ships this coasting privilege, and show to the proper authorities that this move is necessary in protecting the rights of our American ships and in line with the recommendations offered your honorable Commission when visiting our Pacific coast.

JAMES ROLPH, Jr.,
W. G. TIBBETTS,
GEORGE E. BILLINGS,
H. E. PENNEY,
W. H. MARSTON,
GEO. E. PLUMMER,
H. Z. HOWARD,

Committee.

Resolved, That a committee be appointed to draw up a letter addressed to the honorable members of the Merchant Marine Commission, calling their attention to the fact that foreign vessels are now allowed to engage in the carrying of freight between American ports and the Canal Zone, and to enter a strong protest against the ruling of the Department of Commerce and Labor, which allows this coasting privilege to foreign vessels.

Certified a full, true and correct copy of a resolution unanimously passed and adopted by the board of directors of the Shipowners' Association of the Pacific Coast at a meeting of said board duly held at San Francisco, Cal., on this 15th day of November, 1904.

[SEAL.]

R. S. CLARKE, *Secretary*.

At 2 o'clock p. m. the hearing was adjourned.

WASHINGTON, D. C., *Monday, December 5, 1904.*

The Commission met at 2 o'clock p. m.

Present: Senators Gallinger (chairman), Lodge, Penrose, and Mallory, and Representatives Grosvenor, Minor, Humphrey, and Spight.

Also Mr. Eugene T. Chamberlain, Commissioner of Navigation.

Richard H. Goldsborough, of the city of Washington, appeared.

STATEMENT OF RICHARD H. GOLDSBOROUGH.

The CHAIRMAN. The formal hearings of the Commission were closed some days ago, but at a recent session of the Commission a suggestion was made regarding turbine engines, partly from the fact that the two new Cunard steamers are to be equipped with engines of that type, and it is expected that they will greatly increase the speed of the vessels. A wish was expressed at that time that we might look into the question with a view of getting some information on the general subject. By rare good fortune I overheard Mr. Goldsborough make an observation concerning the matter, and in conversation with him learned that he had given the subject great study and is now having an engine constructed in New York. Mr. Goldsborough kindly consented to come before the Commission to-day to present the matter, and he can proceed in his own way. The members of the Commission can interrogate him as he goes along or at the close of his remarks, as they may think best. Mr. Goldsborough, the Commission will be pleased to hear from you.

Mr. GOLDSBOROUGH. Mr. Chairman, the use of steam for power purposes and its explosive force and effect have been long understood. The art is very much older than is popularly believed. In fact, particularly in the form of which I am about to speak—the use of it in turbines—it was known before the Christian era. I believe the original invention is the æolipile, ascribed to one of the contemporaries of Archimedes by the name of Hero, who made a very rude construction, but embodied in it the principle which we find to-day in a certain class or type of engines known as reaction turbines.

Now steam—the energy that is stored in steam—may act in two ways or a combination of the two. It may act statically, compara-

tively speaking, at rest, by expansion in a cylinder, such as is the case in reciprocating engines, or it may act kinetically—that is to say, where the energy is transformed or translated from pressure into velocity, carrying with it the weight of the steam. This is guided or directed against movable and moving vanes or buckets placed on or about the periphery of a rotor or wheel to produce work in the form of rotation.

THREE TYPES OF TURBINES.

There are to-day in use three types of turbines, a brief discussion of which will, I think, exemplify the present condition of the art and throw light upon the question of its probable usefulness to the merchant marine.

Here is a wheel of what we call the kinetic type. Before exhibiting it to you I will pause a moment to call or recall your attention to the natural law which governs all bodies in motion and which, of course, governs steam acting as a body in motion. Some of you will, no doubt, go back in memory, as I do, to a period of many years ago, when as young men you studied in your academic courses the immortal Newton. It is forty years since I opened the book, but my recollection is that what is known as the first law of motion in Newton's Principia, broadly stated, is this: A body once set in motion will continue in motion with a uniform velocity and in a straight line forever, excepting only as compelled by impressed force to change its state.

Add to this law the second and third laws—(second) that change of motion takes place in the direction of the straight line in which an applied force acts and is directly proportional to the amount of that force, and (third) that every action has an equal and contrary reaction; that is to say, the mutual actions of two bodies toward each other are always forces equal in amount and opposite in direction. Read these laws aright and you have in a nutshell the philosophy upon which these engines are constructed. The energy in the steam is transformed, converted by expansion in a passageway, from pressure into velocity, and the vis viva, or living force, is utilized in rotating the wheel it is made to impinge upon.

For illustration, take a steam chest or a boiler holding steam and insert a pipe into it. It may be rectangular, like this [indicating], or it may be round. The steam will flow out through it with a velocity proportioned to the entering and exit pressures. A current of steam driven by an initial pressure of 150 pounds gauge discharging into the atmosphere will acquire a velocity of 1,600 feet a second. That is through a pipe uniform of cross section. For example, imagine this rod to be hollow and the steam flowing freely through it [indicating]. If the boiler pressure was 150 pounds, as I have said, the steam would flow through it at the rate of 1,600 feet a second, or about 20 miles a minute.

But if this pipe were constructed in a divergent way, so that it would flare out here [indicating] like a trumpet and gradually increase from this point to that point [indicating], instead of acquiring a speed of 1,600 feet the steam would have, owing to a greater capacity for expansion in a nozzle of that form, a speed of about 2,700 feet a second (over 30 miles an hour). With that speed the expanded steam rushes down against a wheel of this or any other suitable construction and naturally there is "something doing."

THE VANES OR BUCKETS.

These vanes or buckets in this engine [indicating] are circular in form, that the current discharged against them, more or less tangentially, may easily change its direction. It has to be changed because the velocity is utilized in proportion as the course of the flow of the moving body of steam is reversed by the impact.

This is in obedience to that law of motion which I have cited. It is interesting—so interesting as to justify calling your attention to it in this connection—that every statement in that law is apparently contradicted by every fact in human experience.

It is almost incredible that any but an inspired eye could distinctly see through the stone wall of contrary human experience, a truth invisible to all the seers and sages from the beginning of time. No one ever heard of a body in motion with a uniform velocity. We have no conception of any absolutely straight line, and that any moving body can or will continue in motion with uniform velocity forever is unthinkable apart from conceptions of eternity in pious minds. But Newton saw as clearly and truly this law of motion as he did the law of gravitation, but for which a star once set in motion would continue therein in a straight line until it met another star with resultant chaos.

To come back to the turbine, it is difficult to make the operation of them clear to the lay mind in a brief and extemporaneous way. But the action may be generally described as this: The current rushes along, yielding up its vital force more or less to every movable thing it impinges upon until it finally falls or passes out as an inert mass with reference to the wheel, to which it has surrendered all of its energy less what has been lost of it by friction and other items of what is called imperfect restitution.

OTHER THAN MOVABLE VANES.

In the multiple-impact engines there are other than movable vanes. They are called rings of stationary or intermediate blades or vanes, and are like the movable ones in form. Their use is to change the direction of the steam current after each impact and guide it at an advantageous angle to the following one.

Of course, passing through in this tortuous way involves considerable loss, but not so much as one would naturally imagine, because when one elastic body meets another elastic body which is immovable, as is the case when the current passes through the stationary blades, the impinging body rebounds, without loss of energy, practically, except from friction. If you throw an ivory ball against a wall which is of ivory, the ball will come back directly to your hand with all the force with which you throw it, less the losses arising from imperfect restitution, which would principally be the losses from friction and gravitation.

But if the wall could recede from the blow and take up the motion of the impinging body, then the ball which you throw would stop where it hits and fall down, its inertia all gone—given up to the moving body. You see that in the game of billiards. One ball hits another one. The ball which receives the impact goes on and the other ball stops, unless it is given a secondary force, such as is given it

by a following stroke. The ball which hits, after it has collided with the other ball, is motionless, unless the contact angle is sideways and slight, when it rolls on with but little loss of energy. In other words, its own progress is dependent upon the angle of inclination with which it strikes the colliding ball and the correspondingly proportional energy given up.

This consideration does not arise, however, in single-impact engines. There the steam is fully expanded in its way to the wheel and strikes it once, for all with its utmost force.

But in point of fact it is impossible in a turbine engine of any form yet devised, and probably it always will be impossible, to get the utmost that is to be had of the steam with one impact, and for this reason: In order to arrive at a maximum of efficiency the wheel should be traveling half as fast as the steam which collides with it. If the steam upon its way to the wheel has a velocity of 4,000 feet a second, then the wheel should be moving with a peripheral speed of 2,000 feet a second in order to take up all the available energy or velocity and get the maximum effect from the impact.

Now this would be possible practically but for two things. The first is that the peripheral speed of the wheel would be so great at 2,000 feet a second that no material yet known would be able to hold together against the destructive centrifugal force evolved. Perhaps the smallest vanes or buckets would have to bear the breaking strain or stress of a ton at a speed like that, and the wheel would be disrupted, the cohesive strength of its material not being able to stand the strain.

Senator PENROSE. Would not the metals also melt?

Mr. GOLDSBOROUGH. Yes; if you stopped them suddenly enough they would melt, just as a meteor coming down through the air starts cold, but such is its velocity that the friction of the air causes it to melt and it comes down red-hot.

THE DE LAVAL ENGINE.

Now, an engineer by the name of De Laval, who had been investigating this subject for quite a long while, some years ago invented what is known as the De Laval engine, a single-impact machine, which has proven a very successful machine for small powers—that is, for powers under 300 horsepower—but is not considered suitable for large units, such as you would use in the Navy or in the merchant marine.

I will explain how Doctor De Laval and, in fact, practically all of the inventors prior to this time, placed the vanes. This particular machine which I have shown here is a new departure. Here are vanes, or buckets, as they are called [exhibiting]. Instead of disposing them axially, like the buckets on an old overshot wheel, so that steam impinging upon them would revolve the wheel in a longitudinal direction, that way [indicating], he placed his vanes radially on the periphery of the wheel, like that [indicating], and then shot his steam sideways against them at an angle of about 20°, striking them on this side, exhausting on the other side [indicating]. You see how that works. So the wheel or disk received two impulses. He used a solid disk, not a hollow one, and it received two impulses, one longitudinal and the other lateral. In this way there is a tend-

ency to thrust the wheel over to one side all the time, or what is known technically as a side thrust.

Now, the reason for adopting that form was probably this—that Doctor De Laval did not think it possible to get the exhaust out of a hollow wheel efficiently where the vanes or buckets are placed as these are, axially. In this case you will notice that each vane has a shoulder, and when the disks constituting the walls of the wheel are brought together they are locked. They can not get out of place.

One of Doctor De Laval's difficulties was that this side thrust made a great deal of vibration, particularly in starting. Another was that having but a single impact, he had to get all out of it he could. To do this he had to give his wheel an enormous and almost prohibitive speed.

A FLEXIBLE SHAFT.

Doctor De Laval was a man of great genius. He said to himself, "I will overcome that side thrust by making a flexible shaft." This is the shaft [exhibiting]. "I will make the shaft flexible," said he, "so that it will vibrate within narrow limits, and inasmuch as the law of vibration is that vibrations diminish with speed there will come a point when there will be little or none left, as in the case of a top at high speed. When the top first strikes the ground it goes jumping around. Then it spins faster and faster, and after a little while 'goes to sleep,' as we used to say when boys."

So Doctor De Laval invented a flexible shaft, and the machines since made in his name are used all over the world.

There is another trouble about high speed, namely, that you can not use it without reducing or diminishing it by some form of mechanical appliance or gearing, so that when the speed is delivered to whatever is using it it will come down to a reasonable rate.

Now, take the De Laval machine of this diameter. A machine of this diameter has to attain a speed of over 20,000 revolutions a minute before it can be used. It has to pass what he calls the "critical speed" before he can use it.

To my mind the ideal turbine, particularly for marine use, the one undoubtedly which is to be used here and in England in large units, must carry a rigid shaft like this one [exhibiting]. At the end of that shaft you have a propeller, and as your wheel turns around the propeller turns with it all the time. You save all gearing; you save all the vibrating; you save a large part of the space that is required for reciprocating engines.

SENATOR LODGE. Is a turbine of that kind used on the Channel steamers between Dover and Calais?

MR. GOLDSBOROUGH. Yes, sir; they are known as Parsons turbines, and it is with that type that the *Victoria*, of the Allen Line, now about completed, is to be equipped.

THE PARSONS TURBINE.

The Parsons type, however, is entirely different from the De Laval. Doctor De Laval endeavors to get all there is in it out of the steam in one impact. Mr. Parsons endeavors, in order to reduce the speed, to get out what there is in it in just as many impacts as it is possible to make. The *Victorian* engines, now about completed, are said to con-

tain 1,000,000 moving parts. The Parsons type is known as a "reaction" type, although it acts both in a kinetic and in a reactionary way.

You understand the difference between the reaction and the kinetic types. In a kinetic type the steam is permitted to impinge upon the vanes with a high velocity—the highest you can utilize, whether you have one impact or many. In other words, in this type you endeavor not to dam up the current and not to obstruct its flow other than by imparting its energy to the moving rotor.

But in the reaction type the steam is dammed up, so to speak. Its speed is restrained. It moves more or less under boiler pressure, and is guided and directed through vanes which, instead of having a uniform cross-section, have a diminishing cross-section toward the discharge end.

Senator LODGE. Is that the principle of the turbine the General Electric Company is putting up?

Mr. GOLDSBOROUGH. No, sir; the General Electric Company uses the Curtis turbine, which is of the kinetic type. I will briefly describe that later. It is an entirely different type.

The reaction principle or theory is founded upon something like this (I think I can make it plain to you): Assume that this is a hollow tube and that it is full of steam or water under pressure. In fact, the first practical machine of this kind was a water engine, known as the "Barker mill." There is a hole in a pipe at one end like a hole in a flute, and there is a similar hole on the opposite side of the other end, and the pressure of water or steam comes in at the center. Now, if the hole is here [indicating] the steam will rush out through it this way, and the rotor will turn in the opposite direction. By the way, this is the original Hero proposition of over two thousand years ago. The steam rushes out, and the side where the hole is is released of pressure, but the pressure remains on the opposite side. Here is a pressure, we will say, of 100 pounds to the square inch, but where the hole is there is none. So the opposite side has 100 pounds per square inch more pressure than this at this point. The consequence is that the mill will revolve just as a water sprinkler rotates in an opposite direction from the discharge of the water.

The rotation of modern reaction turbines is likewise due to the fact that the pressure on one side is greater than the pressure on the other side of the vanes, and the difference between those pressures is the measure of the efficiency or of the work to which the steam can be put in passing through.

THE TURBINIA AND OTHERS.

Now the Parsons turbine has been used in England for quite a number of years. The *Turbinia* was successfully tried some years ago and developed a speed of over 30 miles an hour. Under the Parsons patents, or under other patents—and there are several others that I could name, like the Curtis—that may be adapted to marine propulsion, I do not think that there can be any doubt that steamers of sufficient size to carry the mails, at least, can be driven across the ocean in three days. There is no doubt in my mind about that. I shall be very much surprised if the *Victorian* does not break the record when she gets into proper running shape.

The difficulty, however, with the Parsons type is, as I said before, that it has such an infinite number of parts and a very great diameter, and occupies more space than any other type. The rotor is an enormous drum. Imagine an enormous steel drum cylinder like this, 15 feet in diameter, carrying all around the periphery little radial vanes like these, upon which the steam impinges as it goes from one end to the other end. This cylinder, we will say 15 feet in diameter, revolves within a casing which is so close that the clearance is a very small fraction of an inch. If it were greater the steam would loaf through, it would leak through, as some of it does anyway. It has, say, 150 pounds pressure at this end, and there is a vacuum at the other end [indicating]. It has got to work its way through rows of moving vanes, alternating with rows of stationary or intermediate vanes—vanes attached to the casings in this way [exhibiting]. And so it goes from one set to another until all its available energy, less what is lost by imperfect restitution, is utilized, when the exhaust is discharged into the condenser on the other side, cool enough to put your hands into without scalding.

Parsons, De Laval, and Curtis use radial vanes that stand, as I said before, on the periphery, in a radial position. No inventor, up to a recent date at least, has discovered a way of discharging steam against axial vanes (called axial because they are parallel with the axis or shaft) into a common hollow chamber and getting it out again without prohibitive losses.

A MILLION OF PIECES.

The CHAIRMAN. Just there, Mr. Goldsborough, you speak of the Parsons machine having a million of pieces. Is that so?

Mr. GOLDSBOROUGH. Yes, sir. The *Victorian's* engines are said to have that many. Each one of them has to be made with the utmost nicety, and I do not suppose that there are a dozen workshops in the world where they could be successfully put together.

The CHAIRMAN. Would there not be great danger of something happening to some of those innumerable pieces in a voyage across the Atlantic?

Mr. GOLDSBOROUGH. Yes; such things do happen sometimes.

The CHAIRMAN. What then?

Mr. GOLDSBOROUGH. Then there is trouble. Of course this thing is revolving with high speed, producing an enormous centrifugal strain. Should that strain be greater than the strength of the vanes, or vane fastenings, for instance, they would go out like so many cannon or rifle balls if the casing did not prove strong enough to hold them.

Senator PENROSE. I would rather go a little more slowly, I think.

Mr. GOLDSBOROUGH. Of course they guard against that sort of thing with wonderful mechanical skill and ingenuity in putting these machines together. It is marvelous. There are mechanics who can do what I saw being done in New England quite recently. There are men who can put this wheel, which I hold, within another wheel with a clearance of one-thousandth part of an inch, and yet it will revolve within there without touching anywhere.

The CHAIRMAN. Let me ask you just one question there. I saw that you clamped two pieces together and they locked themselves.

Mr. GOLDSBOROUGH. Yes.

The CHAIRMAN. Ordinarily they use screws or rivets, do they not?

Mr. GOLDSBOROUGH. They do.

The CHAIRMAN. What about the Parsons machine in that respect?

ONE MILLION VANES.

Mr. GOLDSBOROUGH. It has a great many parts, rivets, screws, and bolts, but I was talking about vanes only. There are said to be one milion vanes in the *Victorian* that must be put exactly in place within a hair's breadth, and all are required to have a uniform standard of strength. It is the case of a chain, the strength of which is measured by the weakest link.

The CHAIRMAN. Is that clamping or locking arrangement peculiar to your turbine, the turbine of the American Turbine Company?

Mr. GOLDSBOROUGH. Yes, sir. The scheme that I am now going to show you is new. In the first place we take two disks. These represent two disks [indicating]. This is only a section, we will say the twentieth part, of the wheel. Between these disks we clamp the vanes. The vanes are made separate and apart. They are made by the thousand, and they can be made cheaply. They are tested each one of them individually. Each carries a shoulder on both sides like this [indicating]. For the shoulders to fit in there is a series of holes bored in each disk near the periphery, all the way around [indicating]. Then when the vanes are put in [indicating] and the disks clamped and brought together they are locked there without screws or rivets. It is impossible, under any strain or stress, for them ever to get away without the disks breaking. The nozzles which carry the steam like that [indicating] are always placed stationary in the casing, and we have a great many of them. In fact, we have nozzles all the way around. Now, when the steam gets inside of the chamber in the wheel the speed is arrested; the energy is imprisoned there, so to speak. It is not lost. No energy ever was or can be lost. It looks around for an exit. It is a giant and wants to get out.

In the meantime the velocity has been re-generated into pressure. It presses on every side to get out. There is no place where it can escape except through the disengaged vanes—the vanes which are not immediately under the nozzles. So it is flowing in through a certain number of vanes and flowing out through all the other vanes continuously. It has worked its way in and has to work its way out. Now, when it works its way out it escapes through axially placed exhaust channels cut in the casing, the current dividing to the right and to the left, to go into other wheels of like construction; because in order to get the speed low enough to avoid gearing you must utilize the energy in the steam in stages.

A REDUCED VELOCITY.

Instead of adopting Doctor De Laval's course and sending the fluid through the nozzles with a velocity of 4,000 feet a second, we send it through with a velocity of 1,000 feet, retaining in the steam unexpended the balance of the pressure for use upon the subsequent wheels borne upon a common shaft. In other words, we so divide the power as to use, say, one-fourth of it on the first, one-fourth on the second, one-fourth on the third, and the remaining fourth on the last wheel.

Now, dividing in stages is not new. It is new in this, however, that we do not use in this particular engine intermediaries, or guide vanes. This [exhibiting] is a drawing of an engine we are now constructing [indicating], and it is of a kind suitable for marine purposes. This part represents one-half of the machine, with the casing off. Here is the lower casing. It has an upper casing like that [indicating]. When in operation, of course, you do not see these parts.

When you take the casing away this is the way it looks. This represents an annular chamber that goes all the way around the entire casing [indicating]. Steam is admitted by pipes into this chamber. This is what we call the nozzle ring [indicating]. This drawing is to scale, and is one-half of the actual size of a 750-horsepower engine. The wheel structure is 20 inches in diameter and 3 feet long. The steam comes down through the vanes without lateral expansion. We want it to go as slowly as possible, to keep down the speed. Also to minimize the friction losses, which are as the square of the speed.

The steam comes down to and goes through these vanes, passes into this narrow chamber, and splits upon this ridge which is made like a Pelton vane [indicating]. One half of it goes to the left and the other half to the right. It is, in effect, two machines, but it is something more than that. One-half of the flow comes this way and the other half that way [indicating].

This is entirely different from the Parsons radial engine and is free from its chief defect—that is, loss by friction at the turns in the tortuous radial canal.

In this construction there are no screws, no rivets, and no bolts, other than those which run through and tie all the wheels together.

THE CURTIS MACHINE.

Now, I think I have covered the general field. I will say one word as to the Curtis machine, which I admire very much. Mr. Curtis conceived the idea of building a vertical machine.

The CHAIRMAN. He is an American, I believe?

Mr. GOLDSBOROUGH. Yes, sir; he is an American. He conceived the idea of building a vertical machine that would spin like a top. There are others of the same kind, but his is successful in practice. His machine stands up on a shaft like that [indicating]. There is one of them in this city that is, I suppose, 12 or 15 feet high and about 10 feet wide, that will weigh fifteen or twenty thousand pounds, and it revolves on what are called "steps;" but the friction resulting from rapid revolution is so great that he injects oil under the steps under great pressure, something like 500 pounds to the square inch, so that theoretically it rotates on an oil film and has but little frictional loss.

The difficulties with the Curtis machine have been mainly confined to the valves regulating the flow from wheel to wheel. These valves become heated and stick, as it is called. Still, these engines are coming very generally into use in large power plants in this country. Whether vertical engines of this class will ever be adapted to marine propulsion is doubtful, because in the nature of things they will be affected by the motion of the ship, which does not materially interfere with the Parsons machine and which does not interfere at all with a machine of the type which I have illustrated this afternoon.

Now, I shall be very glad to answer any questions.

THE GOLDSBOROUGH MACHINE.

The CHAIRMAN. Mr. Goldsborough, how far have you progressed in the manufacture of your machine, and what proof have you thus far elicited that it is going to be a workable machine?

Mr. GOLDSBOROUGH. This is a section of a working machine which we have already built. It is operative all right. The scheme itself has been passed upon by some very eminent engineers, and I think it is susceptible of demonstration to any board of engineers anywhere that it will work successfully.

The CHAIRMAN. Have you a patent on it?

Mr. GOLDSBOROUGH. We have a patent on it. Here is the patent [exhibiting] that the Patent Office did me the honor to grant in the very terms applied for.

Senator MALLORY. Is that a patent for the entire machine, or for improvements on one already existing?

Mr. GOLDSBOROUGH. No; that was for the entire machine. We have a great many other patents applied for covering various parts and processes that may be used in the art for this and for other types. I think we have before the Office some fifteen or sixteen cases, embodying several hundred claims.

The CHAIRMAN. Are you having an engine constructed?

Mr. GOLDSBOROUGH. Yes, sir.

One peculiarity about this machine is that it is very simple, and has this advantage, that it can be put together and taken apart practically without any difficulty whatever. This engine was stripped in fifteen minutes before I came here. That wheel was taken out of its place in five minutes and brought here.

The CHAIRMAN. What space will your engine occupy as compared with an ordinary steam engine?

Mr. GOLDSBOROUGH. I think it is fair to say that all types of turbines will take about from one-fourth to one-tenth less than the ordinary reciprocating engine. This engine will take less than one-third of the space occupied by the Parsons and less than one-half that occupied by the Curtis machine of like power.

WONDERFUL COMPACTNESS.

The CHAIRMAN. What about the space as compared with an ordinary engine?

Mr. GOLDSBOROUGH. You can judge of that when I tell you that this drawing is one-half of the actual size of a 500-kilowatt engine.

Commissioner CHAMBERLAIN. One-half?

Mr. GOLDSBOROUGH. It is just one-half the size of a 500-kilowatt engine, or about 750 horsepower, and it could be increased to 1,000 horsepower by the addition of 2 inches on each end of the rotor.

Commissioner CHAMBERLAIN. And you could set that 1,000-horsepower engine right on the table here?

Mr. GOLDSBOROUGH. Yes, sir; I could put in this room easily engines aggregating 150,000 horsepower.

Senator PENROSE. Can engines of this type be placed in vessels constructed for ordinary marine steam engines?

Mr. GOLDSBOROUGH. Yes, sir.

Senator PENROSE. It does not require vessels of a peculiar construction?

Mr. GOLDSBOROUGH. Not at all. That gives me an opportunity to say what I had overlooked. The reciprocating engine requires very strong foundations. In a reciprocating engine of this power it will take weeks just for concrete work to make the foundations for it—to take up the vibrations. You can set this engine on the table anywhere. Practically it has no vibration.

Senator PENROSE. Are these engines used for any purpose other than that of marine propulsion?

Mr. GOLDSBOROUGH. The Parsons and the Curtis engines have been largely used in electric works. They reduce enormously the cost of making electricity. There is a question as to whether they are as effective theoretically as the reciprocating engine. So far, although the claim is made very boldly, I doubt very much if they have ever produced a turbine that has all the theoretical efficiency of the best form of triple expansion reciprocating engine. But then they have so many other advantages, particularly in marine propulsion, in the absence of vibration and in direct coupling the propeller with the shaft, that the real efficiency that goes into work is very much greater than that of the reciprocating engine.

Senator MALLORY. Do I understand you to say that these vanes are put on a line parallel with the shaft?

Mr. GOLDSBOROUGH. Yes, sir.

Senator MALLORY. They do not look so in this exhibit.

Mr. GOLDSBOROUGH. Well, I will tell you, in point of fact, the reason why these are not so. They were intended to be precisely parallel, but when an inexperienced machinist put the sides together he had difficulty in making them register correctly, which made the little variation you see here.

AS TO COAL CONSUMPTION.

Senator MALLORY. How about the consumption of coal to run these engines? Have you anything to say on that point?

Mr. GOLDSBOROUGH. I have just said that the consumption of coal in a reciprocating engine in my belief (and I know it would be considered rank heresy for me to say so from a turbine point of view) is less theoretically than in any form of turbine which has been put actually into practice, but in use the losses from gearing, among other things, in reciprocating engines are so great that the turbine will deliver more energy to the switchboard or to the propeller per pound of coal consumed than any reciprocating engine.

I want to say this about the propellers: The propeller has this difficulty, namely, that it can not revolve faster than a certain number of times per minute without producing what is called "cavitation;" that is to say, it throws the water away from itself, producing a vacuum there [indicating].

So in order to couple a shaft directly to a propeller you have to get the speed down to a very low point. If the shaft has a high speed, then the blades of the propeller must be small in diameter. In order to do that successfully, great efforts are being made in this country and abroad to have propellers constructed of a more efficient form for high speeds, and efforts have been made to reduce the speed

of the turbines also, because the very moment you get a turbine that can, with a high degree of efficiency, work down to, say, two hundred or even three hundred revolutions a minute, you will be able to cross the ocean in three days.

The CHAIRMAN. At this point I wish to suggest that Mr. Chamberlain, the Commissioner of Navigation, is present on the invitation of the Commission, and if he desires to interrogate Mr. Goldsborough he can do so.

Commissioner CHAMBERLAIN. I thank you, Mr. Chairman.

TURBINES IN SCOUT SHIPS.

Mr. GOLDSBOROUGH. The Commissioner is no doubt familiar with the fact I have just stated with relation to propellers. They are getting sufficiently close together to be able to produce better speed results than it is possible with the reciprocating engines. I have reason to believe and know that all the foreign governments are looking forward to the development of turbines for scout ships. A ship that will go a thousand miles a day, that can go out to sea in the morning four or five hundred miles and look around and see what is doing and come back in the evening, will be an enormous advantage over the old style. Of course any great marine nation like the English or the German, as they are rapidly growing to be, that can develop a system by which they can economically attain greater speed on the ocean will have an enormous advantage; and I am inclined to think that this Government can properly consider the advisability of encouraging, as they are doing in England and elsewhere, the perfection of these machines. And I wish to say here that I am not speaking for myself at all. Our company is but one of many, and, perhaps, we are of very small stature compared with the giants. There are hundreds all over the world to-day who are trying to work out better and better methods of applying steam in this way, for beyond doubt this is the ideal way.

Senator PENROSE. Are any naval vessels operated with machines of this character nowadays?

Mr. GOLDSBOROUGH. I think not, but I have understood that the British Government have undertaken it. We have this form of machine in the torpedoes, and I understand the British Government are having some torpedo boats equipped in this way, and that they are considering the question of similarly equipping large war vessels now in process of construction.

THE PROBLEM OF REVERSING.

Senator MALLORY. If applied to marine engines how would you manage to back?

Mr. GOLDSBOROUGH. I am glad you mentioned that point. That has been one of the serious problems. It has been a consideration which has undoubtedly retarded the development of the turbine for marine propulsion. Various efforts have been made in this direction. Of course they can reverse by what is called "gearing," but that would destroy a good deal of the efficiency which comes from direct coupling. Various devices have been adopted. I think the *Turbinia* has

three engines, and that one of them is used for backing. But in our system for marine work we think we have a perfect plan of reversing.

Senator MALLORY. You do not use that, then, when going ahead?

Mr. GOLDSBOROUGH. No, sir.

Senator LODGE. They backed those boats all the way out of Calais, which is an artificial harbor. There was not room in that artificial harbor to turn the boat.

Mr. GOLDSBOROUGH. I have been there.

Senator LODGE. You have seen them back out and turn outside and then go on?

Mr. GOLDSBOROUGH. I have not been there for some years.

Senator LODGE. I do not know in detail how it is done, I only know that it is done.

Mr. GOLDSBOROUGH. When were you there?

Senator LODGE. Last summer.

Mr. GOLDSBOROUGH. Were you on one of the turbine steamers?

Senator LODGE. Yes; I made two trips on a turbine steamer.

Mr. GOLDSBOROUGH. Of course by having three engines one of them can be used exclusively for backing. Some of them have a small reciprocating engine for that purpose, and it does not work at any other time. At other times these engines may be doing work for the vessel in various other ways.

TURBINES A PRACTICAL SUCCESS.

Senator LODGE. Have those boats been a practical success? That would seem to be the case.

Mr. GOLDSBOROUGH. Oh, a very great success.

Senator LODGE. They are certainly much faster than the old boats. I made the passage on one in a very heavy sea and she ran very much more smoothly than the other boats.

Mr. GOLDSBOROUGH. As you know, they have no vibration.

Senator LODGE. No; they have no vibration.

Mr. GOLDSBOROUGH. The machine from which I took these parts will make 5,000 revolutions a minute, without the least vibration, in thirty seconds after the steam is turned on.

Senator PENROSE. How do these engines compare in cost with the present ordinary marine steam engine?

Mr. GOLDSBOROUGH. I do not know about the Parsons type. I imagine that it is very expensive, because of the great number of parts. It can not be put together without a great expenditure of time and a very high class of skilled labor. But the cost even of the Parsons type, I am told, is practically the same as that of the reciprocating engine. In simplified forms like this, the cost of making them would be very much less and the depreciation would be practically nil. The revolving parts never touch anything.

TURBINE ADVANTAGES.

I wish to call your attention to another point, for it is really the deciding matter in my mind in regard to marine propellers. This turbine will work for an indefinite period, perpetually, practically with the same water. It does not have to be oiled.

The ordinary reciprocating engines have oil cups and apparatus, and you are pouring in oil or dropping it in the steam all the time,

but here the rotor rotates without touching the casing and does not have to be oiled. The consequence is that the same water converted into steam comes into the turbine on one side, goes out into the exhaust on the other, and precisely as much water goes out as went in. In other words the boiler is run with the same distilled water all of the time.

The life of the boiler is enormously greater; you have no scale; and when you consider that on an ocean vessel you have to carry either an enormous amount of fresh water or use ocean water which has gone through a process of purification, which is expensive and difficult, it is readily seen what this advantage is in turbines.

In a man-of-war all the space between decks is needed for handling the guns and all that sort of thing. This engine has a tremendous advantage in that regard.

Another advantage is that the center of gravity is very low. The engines are close to the floor. The closer they are placed to the keel, the better. You can not put a large reciprocating engine very low down, because the vessel is not wide enough until near the water line. These machines can be placed quite low.

Senator LODGE. The result of the application of turbines to the big commercial steamers of the Atlantic would be to decrease the amount of space taken by the engines and greatly to increase the speed?

Mr. GOLDSBOROUGH. The result would be to greatly increase the speed.

Representative MINOR. Do you carry a condenser on board?

Mr. GOLDSBOROUGH. Yes; they have condensers. There is no doubt that a condenser is an absolute necessity at sea, in an economical point of view. The condenser in the ordinary small machine type is of very doubtful utility when you consider the extra cost involved and the difficulty of maintaining high vacuums. In small powers it is not economical. In large powers it is considered economical to use them; but in marine propulsion you have the water right at hand. All you have to do is to scoop it in from the ocean, and it saves the coal pile tremendously.

Senator MALLORY. I infer from what you said that you do not claim these marine engines make a saving of coal consumption to any great extent.

ECONOMY IN TIME.

Mr. GOLDSBOROUGH. Except in the matter of superior speed. In going from New York to Liverpool less coal will be used because they will go faster per pound of coal consumed.

Senator MALLORY. Would you not save coal by being able to utilize all your steam power, or of the energy of your steam, which is not the case, I believe, in reciprocating engines?

Mr. GOLDSBOROUGH. In turbines you do not get quite so high a thermal efficiency, in my judgment, but the loss is a theoretical rather than a practical one, because whatever efficiency is obtained is applied directly to the propeller, and you save the intervening losses due to gearing or reducing the speed, and of course you get the tremendous advantage which comes from safety, comfort, small size, and light weight. The consumption of coal per horsepower per hour might be about the same in the turbine machine, and yet it would accomplish more than could be done in a reciprocating engine.

Commissioner CHAMBERLAIN. Do I understand you to say that in large steamers practically the Parson's type is the only one that has been applied?

Mr. GOLDSBOROUGH. It is the only one which has been applied.

Commissioner CHAMBERLAIN. The Parson's type is one of the earliest types?

Mr. GOLDSBOROUGH. Mr. Parsons invented what was known as a "radial" machine, and it was quite a successful one, about twenty years ago—I think in 1883 or 1884. He also invented a machine of what is called "parallel-flow" form, which is the one he now uses. But he was involved in litigation as to that and for a number of years he used the radial machine. When the litigation was settled in his favor he returned to the use of the parallel flow. His invention attracted the attention of capitalists all over the world, more particularly in England, and his application to the *Turbinia* was one of the marvels of the age. The consequence was that the great shipbuilders of England have adopted it because it has been demonstrated that it is a practical machine for marine propulsion.

IMPROVING ON PARSONS.

Commissioner CHAMBERLAIN. I should like to make one further suggestion. What seems to be a very considerable improvement over the Parsons method, as we understand it, you have presented, and it is right before the Commission on the table here. If that much can be done in less than four years, the Commission might deem it wise to wait for a year and see how the Parsons method would work when applied to large steamers in actual operation, and at the same time avail itself of improvements such as those you have suggested.

Mr. GOLDSBOROUGH. I would say, in reference to that, that it took a great number of years to make the reciprocating engine a finished work of art. Assuming that there are some little improvements coming now and then, the reciprocating-engine construction is now a finished art. But the world moves very rapidly nowadays. Some 300 different patents have been already issued on turbines. I suppose there are at least a thousand inventors, many of them of reputation and ability, who have been at work upon them for the last five years, and millions of dollars have been spent in developing turbines. They have them down now to a high degree of efficiency.

When you come to consider that they can be put in and taken out of any vessel with very little trouble, and that if any of them should become out of date a better form can be substituted, I should say that the marine nation which first gets into the field, or rather on the ocean, with turbines will have a very decided advantage. To have a scout ship that can go from New York to Liverpool in three days or four is something that any nation would be proud of and could afford to spend some money to obtain.

EASY OF REVERSAL.

Senator MALLORY. Is there any practical difference between the turbine and the reciprocating engine in the ability of a vessel to slow down and slacken speed from full speed?

Mr. GOLDSBOROUGH. No, there is practically no difference in that regard.

Senator MALLORY. The turbine propeller is revolving with much more speed than the other, I understand.

Mr. GOLDSBOROUGH. The turbine propeller is smaller. They do not have a single propeller, but they have three propellers. One blade is on the keel line, and there is another one on each side.

Senator MALLORY. This is the point I was trying to reach: In going with very great speed there is a possibility of collision. The reciprocating engine can reverse, without any danger, right off. Can you do the same with this engine? The other can stop without any danger.

Mr. GOLDSBOROUGH. Yes; the strain would really be less than on the other for this reason, that the reciprocating engine would have a propeller blade four or five times greater in diameter, and the consequence is that the centrifugal and stored forces would be greater and more difficult to manage. But the rapidity with which a moving body can be reversed is astonishing. At Hartford recently I saw a 5-horsepower engine that could be reversed 18,000 times a day. In other words, it could be reversed when the speed was so great that you could not see the spokes in the wheel; you simply saw a little line of light there; but when it reversed you saw all the spokes. So there is nothing in the reversing proposition. There are no difficulties of that kind in this form of construction that may not be overcome. It would be a very great advantage to get the speed down so that instead of very small propellers you could have them of medium size. But when it comes to work, no reciprocating engine has been built, and I doubt if any ever will be built, that can achieve the results accomplished by turbines, particularly where the loads are varying. As you see, this turbine wheel is in itself a flywheel. It stores up energy while it goes along, and when the load shifts slightly the wheel does not know it; the stored-up energy takes it and carries it along. With a three-quarter load or a half load, for example, the efficiency is 25 per cent greater than in a reciprocating engine.

Senator MALLORY. Is this a peculiar type of bucket?

Mr. GOLDSBOROUGH. No, sir.

There is one thing I wanted to say in reference to this proposition. The power is applied here all the time on every part of the periphery. There is an incessant and perpetual current of steam engaging all these vanes, and the wheel will revolve theoretically without bearing on its center of gravity—it is so perfectly balanced dynamically and thermally.

Commissioner CHAMBERLAIN. I suppose one of the matters this Commission is considering especially is the competitive elements in ocean trade?

Mr. GOLDSBOROUGH. Yes.

RELATION TO WAGE ROLLS.

Commissioner CHAMBERLAIN. Of course, the two most important factors are what the American steamship costs as compared with what the British steamship costs and the pay rolls of the men on the American ship and the British ship. This method of propulsion is not so far advanced that it would be possible, even in a rough way,

to outline about what would be the difference in the number of men? You spoke of oilers, and there would be a reduction there, of course; but I suppose the number of engineers would be the same as at present?

Mr. GOLDSBOROUGH. The cost of the attendants on the turbine would be very much less than on the reciprocating engine.

Senator MALLORY. The English would do the same thing and cut down the number of engineers.

Commissioner CHAMBERLAIN. Of course they would, but we have to pay big prices to our men, and of course if we could get one of these machines that would run practically without any men at all we would be in a more favorable position for competition.

Mr. GOLDSBOROUGH. So far as that factor is concerned, you can cut down the number of men by the use of these machines.

I am much obliged to you, gentlemen, for your kind hearing.

The CHAIRMAN. We are much obliged to you, Mr. Goldsborough.

WASHINGTON, D. C., *Wednesday, December 7, 1904.*

The Commission met at 2 o'clock p. m.

Present: Senators Gallinger (chairman), Lodge, Penrose, Martin, and Mallory, and Representatives Minor and Humphrey.

Edwin S. Cramp, of the William Cramp & Sons Ship and Engine Building Company, Philadelphia, appeared.

STATEMENT OF EDWIN S. CRAMP.

The CHAIRMAN. Mr. Cramp, two or three days ago Mr. R. H. Goldsborough kindly consented to come before the Commission to give us such information as he possessed concerning turbine engines for steamships. It has been suggested that you may be able to give us further information on that point. The Commission will be very glad to hear any expression of your views on that or any other matter that may occur to you in which we are interested. The hearings are practically closed, and yet this is a subject that has been presented to us in such a way that we felt it to be our duty to get all the information we could upon it.

Mr. CRAMP. Senator Penrose informed me of that fact, but I did not know exactly in what shape you wished to have these views presented, so of course I have no written statement; but I thought that as being better than any written statement or any theory as to the value of the turbine as applied to ships I would bring with me a couple of engineering magazines of recent date, showing what, to my mind, is the most wonderful practical experiment the world has ever seen.

NOT A NEW IDEA.

About fifteen years ago Mr. Parsons, in London, started to experiment with the steam turbine as applied to driving electric generators and to marine propulsion. Of course the idea of the steam turbine is not new. An Italian named De Branca was the man who is supposed to have first used it successfully, and that was in 1629. I have a

small book at home, published at Edinburgh in 1829, which gives a steel engraving illustration of his application of the steam turbine driving a druggist's pestle. In the text descriptive of the device De Branca states that he installed a turbine over a blacksmith's forge and drove it by the hot air and gas. Therefore, he is the original inventor of the gas turbine which engineers nowadays are talking so much about. So you see there is really nothing new under the sun.

In the modern application to driving generators, which is the first successful use to which it has been applied commercially, and more recently to ship propulsion, there were many mechanical troubles to be overcome, and they could only do it by years of patient investigation and an enormous expenditure of money.

Parsons, as I said, has been experimenting for fifteen years since he first started, and he has been improving it constantly. The speed with which he was able to propel some destroyers in England startled the whole steam engineering world, and to-day I suppose there are hundreds of the brightest engineers scheming on this very matter, although ten or fifteen years ago a steam engineer would look with contempt on a man as being a humbug who would even talk of turbines.

THE TURBINE IN CRUISERS.

The English Government, in order to thoroughly try this matter on a larger scale, has built four cruisers of the *Topaz* class, three with reciprocating engines and one, called the *Amethyst*, with a steam turbine. I should like to read some of the results which have been obtained. This book is an issue of the London Engineering of November 18—that is, about two weeks ago.

Senator PENROSE. In what year were those cruisers built?

Mr. CRAMP. They have just been finished. The trial trips have just been completed.

All of the gentlemen of this Commission have been familiar by reason of their duties as legislators with the paramount importance that is attached to high speeds for all types of war ships by all naval authorities. At the same time it is necessary to carry as many and as large guns as possible. Also it is desirable to carry a large amount of coal in the bunkers. Then the engineer is not allowed a surplus amount of weight for his machinery and boilers, and in order to preserve the balance of the weights as allotted to the different parts the contractor is penalized at the rate of \$500 per ton over the weights as estimated.

Here are four ships of exactly the same model, the same displacement, and the same boilers. At high speed the three ships made 22.26 and the turbine ship made 23.63, with exactly the same weight of machinery—that is, of engines, boilers, and of water.

IN TORPEDO BOAT DESTROYERS.

Of the destroyer class, the *Cobra*, *Viper*, and *Turbinia* turbine vessels were built in England.

Here the question of economy, which is of vital importance to the success of the system, both commercially and also for naval purposes, was never thoroughly established. Engineers would admit that they could drive faster, but at an awful waste of coal.

So in all these experiments, in all the trial trips which have been held recently, the question of economy has been very carefully investigated. They find, as we all knew, that with the high speeds the turbine was more efficient, more economical than it was at low speeds. Of course, a reciprocating engine is not economical either at that point, but it was known to be very much more economical than the turbine under similar conditions.

However, these reports show that with the adoption of a few more appliances, like feed-water heaters and other devices, properly installed, even at low speeds the turbine will be the equal of the reciprocating engine. But when it gets to higher speeds there is absolutely no comparison.

There is also a table showing that with 750 tons in the coal bunker at 20 knots speed the turbine vessel has a radius of action of 3,160 miles, while the reciprocating engine has 2,140.

At high speeds 23.63 knots is 50 per cent better than 22.34, or 1.3 knots greater than the reciprocating-engine ship can be driven to; and at that speed the *Amethyst* will travel 1,620 knots, whereas the *Topaz* class can only travel 1,420 at 22 knots. So as far as war-ship use is concerned there is absolutely no comparison.

In the design of these reciprocating engines they have taken advantage of the most modern construction. Although they are of 9,000 horsepower and very large engines, they have built them of light construction, similar to what is installed in destroyers and torpedo boats. The stroke was made only 24 inches, so as to reduce the weights of machinery still further. So in every case they have utilized every detail known to the highest state of the art for the reciprocating engines, and yet the turbine has been so much superior that to my mind there is practically no comparison between the two.

GOOD MANEUVERING POWER.

Another argument against the use of the turbine was that a few years ago in the *Queen* and the other ships which were built for channel purposes, the turbine engine did not permit of quick handling like the reciprocating engine; but in the tests with these cruisers the turbine ship has maneuvered equally well as those ships with the reciprocating engines.

As far as speed is concerned, the turbine cruiser is greatly superior. From the reports of the trials, economy and efficiency are also conceded.

After results like these it would appear to be absurd to build vessels up to four or five thousand tons unless of this type.

Senator MALLORY. What was the tonnage of those cruisers?

Mr. CRAMP. Three thousand tons.

The CHAIRMAN. I notice that the *Amethyst*, which was the vessel which was equipped with a turbine, made in that trial test 1.29 miles more than the vessels with reciprocating engines. Was the *Amethyst* driven to her full speed? Is that the only difference in point of speed? In addition to that there was a large saving in coal.

Mr. CRAMP. Yes; in addition to that the air pressure in the fire-room, which of course is the measure of the forced draft, was six-tenths of an inch less than it was with the reciprocating engines. So the forced draft was not as fierce as it was with the reciprocating

engines. The effect of the reduced drafts was to make a more economical consumption of the coal.

The CHAIRMAN. Some of us have been led to believe, from what we read in the newspaper press and heard in other directions, that there was going to be an enormous increase in the speed of ships equipped with turbine engines.

Mr. CRAMP. When the builder has obtained what under the conditions is practically the limit of modern speed—say 22.3 knots, like these ships made—and increased it to 23.63 knots, there is an enormous increase.

FOUR-DAY SHIPS.

The CHAIRMAN. Yes, but we have been led to believe that vessels equipped with turbine engines are going to cross the Atlantic in three or four days. I do not mean that we have such vessels, but it has been said that in the near future we are going to have them.

Senator LODGE. Did you notice a dispatch sent that the *Victorian*, of the Allan Line, had made a trial trip?

Mr. CRAMP. That was in yesterday's paper. I did notice it, but the facts given are very incomplete and misleading.

Senator LODGE. And it was stated that she had not met the speed test.

Mr. CRAMP. The engineer might not have allowed a large enough turbine and not enough boilers, or it may be a very much harder model to drive than was thought for. You can not decide on anything like this unless you know more of the facts.

Senator LODGE. It is not yet demonstrated that the turbine will work on the great ocean steamships?

Mr. CRAMP. I do not see why. The Engineering of October 14 shows a very interesting account of the experiments made in channel vessels, where it has been applied for commercial purposes. The Midland Railroad, of Great Britain, determined to try an experiment. They had 4 vessels to build, about 330 feet long; that is about 50 feet longer than vessels that run to Sandy Hook in connection with the Jersey Central Railroad, and very much of that type of vessel. Two vessels were built with reciprocating engines and 2 with turbines, and the 4 ships were given out to 4 of the leading shipbuilders of Great Britain. Here, again, the speed was the main object, but the saving in weight was 6 per cent.

REALLY A VAST INCREASE.

But here is the way to look at this question. Take the *Amethyst*, and if you would increase her horsepower enough to make 23.63 it would take about 3,000 horsepower more in the same ship, and then you would have to take out your guns or something else equal in weight to the engine power added.

Senator LODGE. I thought they had reached 30 knots on some of those torpedo boats.

Mr. CRAMP. They have made 32 knots and better with scores of destroyers. The vessels that Parsons designed, the *Cobra* and that class, made 35 knots.

Senator LODGE. Those were turbines?

Mr. CRAMP. They were turbines.

Senator LODGE. Have you any doubt that that system could be applied to torpedo boats and torpedo-boat destroyers?

Mr. CRAMP. I think so. The only objections to its universal adoption have been owing to want of the economy and to the handling qualities—that is, reversing and maneuvering; but according to this report, where the investigations were made thoroughly by the English Admiralty, these objections disappear.

Senator PENROSE. Will you state the number of that periodical, so that the stenographer may note it for information and reference?

Mr. CRAMP. I can have the article condensed for you and give you the general result.

The CHAIRMAN. Just submit the article and it will go into the record in connection with your remarks.

Mr. CRAMP. Very well.

The article referred to is as follows:

THE ECONOMY OF STEAM TURBINES IN CRUISERS.

[From Engineering, London, November 18, 1904.]

The trials of H. M. S. *Amethyst*, completed on Wednesday last, unmistakably demonstrated the economy of the Parsons steam turbine, especially at higher powers, as the opportunity presented itself of accurately comparing the results obtained with those arrived at under exactly the same conditions in three cruisers of similar form, draft, and displacement, with the one difference that they were propelled by ordinary reciprocating engines. The vessels, known as the *Topaz* class, are of 3,000 tons displacement and were designed for a speed of $21\frac{3}{4}$ knots, with 9,000 indicated horsepower.

The trials of the ships with reciprocating engines proved that the utmost that could be done with any degree of reliability was 22.34 knots. The *Amethyst*, for the same boiler power, easily steamed at 23.63 knots—an increase of 1.29 miles per hour. But when it is noted that this gain was realized with easier steaming of the boilers, with the same weight of machinery, with no vibration of the ship—which enormously assists toward accuracy of gun fire—and with quite 10 per cent less coal per hour, and a correspondingly greater radius of action, the superiority of the turbine will at once be appreciated. The absence of reciprocating parts reduces possibilities of wear and tear. The height required for the turbine machinery is 20 inches less, so that it can be more easily housed under a protected deck. The air pressure in the stokehole was one-half inch less, so that there was, as a result, less stress on the boilers. The maneuvering capabilities of the turbine cruiser proved quite as satisfactory as the reciprocating-engine ships. The time required for stopping from full speed ahead, or for starting from a dead stop, ranged from seven and a half to twenty seconds, and only a few minutes were required to increase the ship's speed from 10 knots to 22 knots, so that the tactical advantage of the turbine need not be doubted.

Economy is the one great element proved by the exhaustive and very carefully conducted trials of all four ships. At low power for 10-knots speed the water consumption was about 23 per cent higher than in the reciprocating-engine ship. This excess, however, will be very materially reduced when the exhaust steam from the auxiliary

engines on board the *Amethyst* is passed into the low-pressure turbine receiver instead of into the condenser—a practice carried out in the other ships. At 14 knots the conditions are, so far as economy is concerned, more equal; but when the speed was increased to 18 knots it was found that the consumption on board the *Amethyst* was something like 20 per cent less. At 20 knots it was nearly 30 per cent less, and at the higher speed improvement was still greater. The influence of this economy on the radius of action is very marked. For instance, the turbine-propelled ship could, with her 750 tons of coal on board, steam 3,160 sea miles at 20 knots, as compared with 2,140 miles by the cruisers fitted with the ordinary machinery.

Turning now to the details which we have collated from these respective vessels, we may note, first, that the *Amethyst*, the vessel supplied with steam turbines by the Parsons Marine Steam Turbine Company (Limited), of Wallsend-on-Tyne, was constructed by Sir W. G. Armstrong, Whitworth & Co. (Limited), at the Elswick Works. The other three ships are the *Sapphire*, constructed and engined by the Palmers Shipbuilding and Iron Company (Limited), and the *Topaz* and *Diamond*, constructed and engined by Messrs. Laird, Cammell & Co. at their Birkenhead works. So far as the hull is concerned, all four vessels are alike. With a length of 360 feet and a beam of 40 feet, they displace 3,000 tons when the draft is 14 feet 6 inches. In all of the trials this draft was either equaled or slightly exceeded. They are third-class cruisers, and will probably be used for dispatch work, although the speed of the *Amethyst* may justify her being regarded as a scout. The armament includes twelve 4-inch guns, one on the poop, a bow chaser on the forecastle, and five on each broadside on the upper deck. These guns have hoods of 4-inch armor. In addition there are eight 3-pounders, three Maxim guns, and two torpedo-launching tubes on the upper deck.

The boilers are of the *Express* water-tube type, and it was specified that the coal burnt per square foot of heating surface should not exceed 1 pound. In the *Amethyst* the Yarrow boiler, as constructed by Messrs. Hawthorn, Leslie & Co., has been adopted, the fire-grate area being 493.5 square feet and the heating surface 25,968 square feet, a ratio of 1:52.5. In these boilers the constructors have again utilized the method of adopting the two outer rows of tubes for heating the feed water. The top of the water drum to which these tubes are connected is isolated by a diaphragm plate from the remainder of the drum, and into this space the feed water is discharged. This is an important subject in turbine driving, because, owing to the fact that a high vacuum is desiderated, it results that the temperature of the feed water is less than in other ships by about 20° F. The effect of the utilization of these two outer tubes is to heat the water without adding materially to weight carried—always an important matter in war-ship designs. The *Amethyst* tubes are 1½ inches in diameter. The Laird-Normand boilers fitted to the *Topaz* and *Diamond* have 1⅞-inch tubes, but in the Reed boilers in the *Sapphire* the tubes are of 1⅞-inch diameter.

In all cases the two rows nearest the fire are greater in internal diameter to the extent of one-fourth of an inch. The boilers are arranged in all the ships two in the forward stokehole and four in each of the other two. All the 10 boilers are single-ended and placed back to back. In each ship the stokehole is closed, the fans being driven

by inclosed steam engines arranged for forced lubrication. The air pressures on the full-power trial in the reciprocating-engined ship ranged from 1.7 to 2.6 inches. In the *Amethyst*, on the other hand, the pressure at full power was 1.7 inches on one trial and 1.6 inches on another. The former was run in very rough weather, when the force of the wind was four to six, and the other on Wednesday of this week with a calm sea. In Table 1, page 690, where the results of all the trials of the *Amethyst* are set out in detail, it will be noted that at lower power the high air pressure of 1.9 inches is recorded. This is explained by the fact that only four of the boilers were used. In the other trials the pressure was normal. The summary of boiler performances in Table 3 shows the result of the higher air pressure, and also indicates how easily the *Amethyst* attained her excess in speed.

TABLE III.—Boiler results at full power.

	Amethyst.	Topaz.	Sapphire.
Type.....	Modified Yar-row.	Laird-Normand.	Reed.
Heating surface.....square feet.....	25,968	26,000	26,010
Coal burned per square foot of heating surface.....pound.....	.93	1	.98
Steam generated per square foot of heating surface.....pounds.....	7.35	8.02	8.7

The reciprocating engines on the two Laird cruisers and on the one Palmer ship are distinctly suggestive of the destroyer type, having at back and front forged steel columns, braced diagonally. The scantlings are heavier and the working parts are more substantial generally, while the number of revolutions is considerably less. The high-pressure cylinders are 24½ inches in diameter, the intermediate cylinders 38½ inches, and the two low-pressure cylinders 42½ inches in diameter, the stroke being 24 inches. It was anticipated that the full power of 9,800 indicated horsepower would be developed when the machinery was making 250 revolutions, equal to a piston speed of 1,000 feet per minute. In the case of the *Topaz* the air pumps are worked off the main engine. This was the first of the vessels laid down, and subsequent to the order being placed, it was decided that in the others separate air pumps should be utilized, consistent with later-day practice, adopted in view of the better vacuum obtainable by this method. The auxiliary machinery includes two electric-lighting forced-lubrication engines, the dynamos being of 350 amperes capacity at 150 volts, when the engines are making 450 revolutions per minute; two evaporators, capable of evaporating 60 tons per day; and two distilling condensers, capable of condensing steam from the evaporators at the rate of 20 tons per day, in addition to the usual donkey and other pumps.

TABLE I.—Results of steam trials of *H. M. S. Amethyst* with Parson's steam turbines.

Date of trial.....	Oct. 19 and 20.	Oct. 24 and 25.	Oct. 31 and Nov. 1.	Nov. 4.	Nov. 8.	Nov. 16.
Duration of trial.....	24 hours.	24 hours.	30 hours.	8 hours.	4 hours.	4 hours.
Draught of water (mean).....	14 ft. 7 in.	14 ft. 7 in.	14 ft. 6 in.	14 ft. 8 in.	14 ft. 7 in.	14 ft. 6 in.
Speed of ship.....	10 knots.	14.02.	13.186.	20.6.	23.06.	23.83.
Air pressure in stokeholds.....	1.9 in.	0.8 in.	0.46 in.	0.46 in.	0.46 in.	1.6 in.
Steam pressure in boilers.....	250 lbs.	283 lbs.	246 lbs.	255.2 lbs.	243.7 lbs.	260.6 lbs.
Steam pressure in receivers.....						
Cruising H. P.....	94 lbs.	216 lbs.	137.5 lbs.	190.6 lbs.	186.3 lbs.	174.3 lbs.
Cruising I. P.....	19 lbs.	61.2 lbs.	53.7 lbs.	75.6 lbs.	23.5 lbs.	27.3 lbs.
Main H. P.....	27 lbs.	18 lbs.	1.3 lbs.	6.1 lbs.	24.6 lbs.	
Main start I. P.....	Vac. 21.7 in.	Vac. 10.8 in.	Vac. 1.3 in.	4.8 lbs.		
Main port I. P.....	Vac. 19.9 in.	Vac. 11.8 in.				
Vacuum in condensers.....						
Starboard.....	26 in.	27 in.	28.6 in.	27.8 in.	28.9 in.	26.5 in.
Port.....	26.7 in.	26 in.	27.6 in.	27.8 in.	27.0 in.	27.4 in.
Revolutions.....						
Center.....	167.2	237.4	319.8	361.1	438.	449.4
Starboard.....	186.2	237.7	391.6	450.8	488.8	484.
Port.....	204.2	230.5	348.1	402.1	492.9	489.
Consumption of water per hour.....	26,280 lbs.	44,060 lbs.	76,433 lbs.	100,606 lbs.	176,845 lbs.	180,525 lbs.
Consumption of coal per hour.....	2,863 lbs.	4,725 lbs.	8,372 lbs.	10,937 lbs.	24,055 lbs.	24,412 lbs.

TABLE II.—Results of steam trials of H. M. S. Topaze, with reciprocating engines.

Date of trial.....	August 1 and 2, 1904.	August 2 and 3, 1904.	July 12 and 13, 1904.	August 7 and 8, 1904.	August 10, 1904.	July 28, 1904.	August 13, 1904.
Nature of trial.....	24 hours at 10 knots.	24 hours at 14 knots.	30 hours at 13 knots.	30 hours at 18 knots.	8 hours at 20 knots.	4 hours at full power.	4 hours at 21½ knots.
Speed of vessel.....	10.058.	14.08.	18.1.	18.069.	20.063.	22.108.	21.826.
Steam pressure in boilers.....	200.	198.	240.	250.	250.	271.	276.
Number of boilers in use.....	4.	6.	8.	10.	10.	10.	10.
Air pressure in boiler rooms.....	0.25.	0.28.	1.19.	0.87.	0.83.	1.8.	2.04.
Vacuum.....	0.2.	0.25.	0.28.	0.25.	0.25.	0.24.	0.25.
Starboard.....	25.7.	25.0.	24.8.	24.8.	24.4.	24.0.	25.3.
Port.....	25.3.	25.0.	24.0.	24.8.	24.4.	24.0.	23.8.
Revolutions.....	107.5.	150.7.	198.6.	195.7.	219.6.	245.6.	242.8.
Starboard.....	106.5.	150.3.	198.8.	195.7.	219.2.	245.5.	243.8.
Port.....	107.0.	150.5.	197.7.	195.7.	219.4.	245.55.	243.3.
Mean.....							
Mean pressure in receivers:							
High.....	75.	142.	192.	188.	216.	244.	240.
Intermediate.....	13.6.	39.	59.	59.	74.	89.6.	89.
Low.....	5.2 in. vac.	2.8.	12.	8.7.	14.	22.2.	22.5.
Mean pressure in cylinders:							
High.....	20.82.	38.57.	74.	64.6.	80.	115.	102.6.
Intermediate.....	6.94.	15.57.	26.1.	26.7.	34.2.	44.5.	44.2.
Low forward.....	6.34.	9.25.	13.8.	13.29.	16.7.	20.1.	20.7.
Low aft.....	5.69.	8.99.	13.8.	13.55.	16.61.	21.5.	21.46.
Mean indicated horsepower:							
High.....	125.	326.	684.	706.	983.	1,585.	1,395.
Intermediate.....	106.	331.	733.	735.	1,058.	1,541.	1,508.
Low forward.....	116.	237.	466.	501.	623.	841.	853.
Low aft.....	104.	230.	467.	441.	620.	897.	885.
Indicated horsepower.....	897.	2,251.	4,493.	4,776.	6,689.	9,863.	9,573.
Consumption of coal per hour.....	2,296.	4,640.	10,494.	10,900.	15,451.	26,150.	27,700.
Consumption of coal per indicated horsepower per hour.....	2.56.	2.06.	2.3.	2.28.	2.31.	2.65.	2.89.
Consumption of water per hour per indicated horsepower.....	23.74.	18.77.	19.0.	18.95.	20.07.	20.18.	21.93.
Consumption of water per hour.....	21,294.	42,260.	94,867.	90,500.	134,246.	199,140.	209,950.

TABLE IV.—*Analysis of water-consumption results.*

	Amethyst.	Topaz.	Sapphire.	Diamond.
<i>2½ hours' trial at 10 knots.</i>				
Indicated horsepower	897	897		
Speed knots..	10	10.058		
Total water per hour lb..	26,260	21,294		
Water per I. H. P. per hour lb..	29.3	23.74		
<i>2¼ hours' trial at 1¼ knots.</i>				
Indicated horsepower	2,250	2,251		
Speed knots..	14.062	14.08		
Total water per hour lb..	44,090	42,260		
Water per I. H. P. per hour lb..	19.6	18.77		
<i>30 hours' trial at 18 knots.</i>				
Indicated horsepower	4,770	4,776	5,012	5,074
Speed knots..	18.186	18.069	18.47	18
Total water per hour lb..	76,493	90,500	99,200	96,410
Water per I. H. P. per hour lb..	16	18.95	19.8	19
<i>8 hours' trial at 20 knots.</i>				
Indicated horsepower	7,280	6,689	7,281	7,145
Speed knots..	20.6	20.063	20.68	20
Total water per hour lb..	100,606	134,248	144,160	137,930
Water per I. H. P. per hour lb..	13.8	20.07	19.8	19.31
<i>¼ hours' trial at full power.</i>				
Indicated horsepower	13,000	9,573	10,200	(a)
Speed knots..	14,000	9,868		
Speed knots..	23.06	21.826		
Total water per hour lb..	23.63	22.103	22.34	
Total water per hour lb..	176,845	209,950	226,440	
Water per I. H. P. per hour lb..	190,525	190,140		
Water per I. H. P. per hour lb..	13.6	21.93	22.2	
Water per I. H. P. per hour lb..	13.6	20.18		

^a The Diamond has not yet run her contract full power.

TABLE V.—*Analysis of coal-consumption results.*

	Amethyst.	Topaze.	Sapphire.	Diamond.
<i>24 hours' trial at 10 knots.</i>				
Indicated horsepower	897	897		
Total coal burnt	31	24.6		
Total burnt per hour	2,893	2,296		
Total burnt per hour per I. H. P.	3.22	2.56		
Evaporation per pound of coal	9.1	9.3		
Miles run per ton of coal	4.72	9.75		
<i>24 hours at 14 knots.</i>				
Indicated horsepower	2,250	2,251		
Total burnt	50.63	49.7		
Total burnt per hour	4,725	4,640		
Total burnt per I. H. P. per hour	2.1	2.06		
Evaporation per pound of coal	9.35	9.13		
Miles run per ton of coal	6.6	6.8		
<i>30 hours at 18 knots.</i>				
Indicated horsepower	4,770	4,776	5,012	5,074
Total coal burnt	112.13	146	157	154.3
Total coal burnt per hour	8,372	10,900	11,720	11,520
Total coal burnt per hour per I. H. P.	1.75	2.28	2.338	2.27
Evaporation per pound of coal	9.15	8.3	8.45	8.35
Miles run per ton of coal	4.8	3.7	3.53	3.5
<i>8 hours at 20 knots.</i>				
Indicated horsepower	7,230	6,689	7,281	7,145
Total burnt	39.06	55.2	57.65	59.1
Total burnt per hour	10,987	15,451	16,142	16,570
Total burnt per hour per I. H. P.	1.5	2.31	2.217	2.32
Evaporation per pound of coal	9.7	8.7	8.94	8.34
Miles run per ton of coal	4.22	2.9	2.86	2.7
<i>4 hours at full power.</i>				
Indicated horsepower	13,000	9,573	10,200	
Total coal burnt	14,000	9,868		
Total coal burnt	42.9	49.5	45.87	
Total coal burnt per hour	43.6	46.6		
Total coal burnt per hour	24,085	27,700	25,688	
Total coal burnt per hour per I. H. P.	24,412	26,130		
Evaporation per pound of coal	1.85	2.89	2.518	
Evaporation per pound of coal	1.74	2.65		
Evaporation per pound of coal	7.35	7.56	8.75	
Evaporation per pound of coal	7.8	7.95		
Miles run per ton of coal	2.15	1.76	1.95	
Miles run per ton of coal	2.17	1.9		

There is, of course, the usual air-compressing machinery adopted in war ships, while in each boiler room there is one main and two auxiliary feed pumps. The enumeration of this auxiliary machinery is justified because of the question of economy at low speeds, which will be referred to later. The *Topaze*, in addition to making her usual contract trials, was required to carry out trials corresponding exactly with those prescribed for the *Amethyst*. The contract trials were thirty hours at the power which would give 18 knots, eight hours at the power which would give 20 knots, and four hours at full power. In no case were the contractors responsible for the legend speed, which was $21\frac{1}{2}$ knots, but in all cases it was exceeded.

Before entering upon a consideration of the comparative results it will be well to indicate generally the arrangement of the turbine machinery on board the *Amethyst*. The difficulty hitherto urged against the turbine for cruisers is the low economy at the cruising speed at which all war ships run for 95 per cent of their time. The Parsons Company have overcome this objection to a greater or less extent in the *Amethyst* by fitting separate turbines for cruising.

Thus at the forward end of the port and starboard shaft, respectively, there is fitted a high and intermediate pressure cruising turbine. On the same shaft there are the usual low-pressure turbines for going ahead and the astern turbines, while in the center shaft there is a main high-pressure turbine. The cruising high-pressure turbine has a 44-inch drum; the intermediate cruising turbine, one of the same diameter, but with different blading; the main high-pressure turbine drum is of 60-inch diameter, and the low-pressure turbine of the same diameter, but longer and with different blades.

All increase in diameter to admit of the expansion of steam. In cruising it is possible to obtain a great range of expansion, the steam first entering the high-pressure cruising turbine and passing to the intermediate cruising turbine, thence to the main high-pressure turbine and through the low-pressure turbines, working in vacuo to the condenser. It will be noticed from the detailed results of the steam turbines on the *Amethyst*, on Table I, that this was the arrangement adopted until the speed attained 14 knots; on the trial at 18 knots the cruising high-pressure turbine was cut out, steam initially entering the intermediate cruising turbine, while in one low-pressure turbine there was a pressure of 1.3 pounds, in the other a vacuum. This condition continued at the 20-knot trial, the pressures in all cases, of course, being increased in view of the greater steam supply. At full speed both cruising turbines were cut out, steam entering only the main system. In this way a high rate of expansion of steam at all speeds was attained. The effect on the revolutions of the respective shafts, shown on Table I, is noteworthy, especially on the 18 and 20 knot trials.

It will be understood, of course, that there are separate steam leads to the high-pressure and intermediate-pressure cruising as well as to the main high-pressure turbines. Another feature that may be noted is that forced lubrication has been adopted in connection with the turbine bearings, two small direct-acting oil pumps by Weir having been fitted for this purpose. Separate air pumps by Weir are used for exhausting from the turbines. The Parsons system of vacuum intensifier—which we described in connection with the *Manxman* (see p. 500, ante)—had not been introduced when the machinery of the *Amethyst* was designed, and, unfortunately, the condenser is too low in the ship to admit of this important addition being made now. A dry-air pump, as in the *Londonderry* (p. 425, ante), would, however, add to the efficiency.

The water-consumption results were arrived at by measuring the feed water in specially constructed tanks. On the upper deck there were four tanks for the main feed—two on the port and two on the starboard side—each pair communicating to pipes running to the feed tanks. The pipe between the pair on the port side, as well as that between the two on the starboard side, had a simple turncock, so that as soon as one tank was filled the flow could be diverted into the other, and the hour or half-hour readings of the gauge determined the amount of water used. The results, therefore, are reliable. On Table IV we have set out the water consumption per hour and the rate per unit of power. The power in the case of the *Amethyst* is, of course, assumed; but as the form of the ship is identical in all cases, we can not be far wrong in taking the same powers for the *Amethyst* as was required to drive the other ships at corresponding speeds. It

is not, however, so easy to deduce the power for the speeds attained by the *Amethyst* in excess of those realized by the *Topaze*; but the projection of a progressive speed curve affords a moderately accurate assumption. As, however, objection might be taken to this assumed power, we have, in fig. 1, plotted the water consumption per hour for various speeds without regard to the power. It will be noticed that for the lower powers the turbine required more steam, but, as we have already mentioned, the *Amethyst* has not the advantage of the utilization of the exhaust steam from the auxiliary machinery. In the *Topaze*, for instance, when running at 10 knots, the water used for the auxiliary machinery was 4,538 pounds per hour, or over 21 per cent of the total, and at 14 knots it was 5,672, pounds, or over 13 per cent of the total given in Table IV. Although most of the auxiliary engines are compound, some are only simple expansion. The steam exhaust from them is thus by no means a negligible quantity in respect of economy. In the reciprocating-engined ships this exhaust steam is led into the low-pressure cylinder receiver, whereas in the turbine ship it was passed into the condenser. The advantage of the reciprocating engine at low powers will greatly diminish, if it does not disappear entirely, when these conditions are alike. The advantage of the turbine vessel in economy after 18 knots is obvious, and at 20 knots is very marked, while at the designed speed of $21\frac{1}{2}$ knots it is nearly 30 per cent.

The steam consumption of the *Topaze* shows a satisfactory thermal efficiency. Taking the water used for the main engines only, we find that at 18 knots the steam consumption was 15.45 pounds, while at 14 knots it was 16.25 pounds, and at 20 knots 16.91 pounds. The trials conducted by the research committee of the Institution of Mechanical Engineers recorded as the best performance 13.35 pounds per horsepower hour; but this was in a ship where economy was the main consideration rather than speed for the minimum of weight. Accepting the horsepower assumption, the performance of the turbine machinery proves to be more satisfactory than this exceptional result recorded by the research committee. At 20 knots the steam consumption of the turbines, even including the auxiliary machinery, was 13.8 pounds, which is a very exceptional figure, but was carefully tested. At 18 knots, where again there can be no question of the power in view of the comparison with the other ships, the water consumption was 16 pounds, including that for auxiliary machinery, so that it would be a safe assumption to say that the main turbines were not taking more than 13 pounds, which is probably a better result than has been realized by any high-speed reciprocating machinery in normal work.

In regard to the coal-consumption results set out in Table V, there is not, perhaps, the same measure of reliability. Disturbing variants come in—the weather, the skill of stokers, the calorific value of coal, etc.; but it is important to note, especially from the diagram, fig. 2, that the coal results corroborate the water or steam economy of the turbine.

In the lower power trials of both ships it will be noted that the evaporative results are fairly constant, about 9 pounds to $9\frac{1}{2}$ pounds per pound of coal; but with the pressing of the boilers to a greater extent there was a slight falling off. In the case of the reciprocating-engined ships, the boilers were at full power burning 50 pounds to 57 pounds

per square foot of grate per hour, which even with perfect control of the stokers is not conducive to high evaporation; but even then the evaporation only slightly fell below 8 pounds in the *Topaze* and was 8.75 pounds in the *Sapphire*. The better result realized on the second full-power trial of the *Amethyst* was due to better weather, and in the case of the *Topaze* to less restrictive conditions in the machinery room.

A better measure of the coal economy is perhaps the distance traveled by the ships at any given speed per ton of fuel, and this also is given in Table V and platted in fig. 3. Here, again, the *Topaze* has the advantage of the power recovered from the exhaust from the auxiliary machinery, excepting at full power; but from 14½ knots upward the *Amethyst* shows superiority. It is most marked at the higher powers, and a good measure of this is the radius of action. From the coal consumption per hour for the various speeds we have deduced the figures given in Table VI. At 18 knots the turbine-driven ship has an advantage equal to 30 per cent over the *Topaze* and at 20 knots of 47 per cent.

TABLE VI.—*Radius of action (750 tons coal capacity).*

Speed in knots.	<i>Amethyst</i> .	<i>Topaz</i> .
10	5,570	7,300
14	4,950	5,100
18	3,600	2,770
20	3,160	2,140
22		1,420
23.63	1,620	

A word may be said about the speed results. The propulsive efficiency is in all cases very favorable. In the *Topaze* four-bladed propellers were fitted on each of the two shafts, and in the *Sapphire*, three-bladed screws; but the diameter, pitch, and area were in both cases exactly the same. Into the results due to these differences we do not propose to enter, but it is satisfactory to know that the propellers on the *Amethyst* gave an average slip. In this case there was one propeller on each shaft, each of the propellers being three-bladed. The diameter in all cases was 6 feet 8 inches, but the pitch of the side screws was 5 feet 9 inches, the area being 19.48 square feet, while the pitch of the center propeller was 6.56 feet, with an area of 19.64 square feet. At 10 knots the mean slip of the three propellers works out to 11.3 per cent; at both 14 knots and 18 knots, to 13.6 per cent; at 20 knots, to 14.4 per cent; at 23.06 knots, under the very heavy weather conditions to which we have referred, 18.4 per cent, and at 23.63 knots, in a smooth sea, to 17.1 per cent. There is the one other fact that the five runs of the *Amethyst*, on Wednesday, over the measured mile on the East Coast, north of the Tyne, showed very little variation. The runs were made on slack tide and the speeds were equal to 23.38 knots, 23.23 knots, 23.53 knots, 23.44 knots, 23.53 knots, giving a mean of 23.42 knots for 473.4 revolutions; but the speed on the four hours' trial was 23.63 knots for 477.6 revolutions.

A concluding reference may be made to the subject of the weight of the machinery. There is practically no difference between the turbine and reciprocating-engined ships, notwithstanding the necessity of having cruising turbines in addition to the usual go-ahead and

go-a-stern turbines. The total for the reciprocating-engined ships ranges from 530 tons to 540 tons, being in the case of the *Topaze* 537 tons; in the *Amethyst* the weights work out to 535 tons. Assuming, therefore, that the machinery developed 14,000 indicated horsepower when the vessel made 23.63 knots, it is evident that the power developed per unit of weight was 26 indicated horsepower per ton; whereas in the *Topaze* it was only 18.3 indicated horsepower per ton. The result, as we have said, proves what has long since been established, so far as stationary turbines on land are concerned, that the steam turbine, when running at its full designed speed, is capable of an economy better than that of the ordinary reciprocating engine. As merchant ships are, for 99 per cent of their time, running at their full speed, the gain must be very considerable. In such case, also, it would not be necessary to have cruising turbines, so that there seems no reason why there should not be some saving also in weight.

LESS RISK AFTER ALL.

Mr. CRAMP. In line, Senator Lodge, with what you were asking, it might interest you if I would recite a conversation I had with Sir William White when he was in this country recently. He visited Mr. Charles H. Cramp, in Philadelphia, and of course talked shop. In speaking about the new Cunard ships, and after describing his connection with Swan & Hunter as consulting naval architect, I asked him if he did not consider it a great experiment to go to the turbine (you know they are to have four wheels on four shafts). He said, "No; when we looked into the conditions which were imposed by the English Government we came to the conclusion that it was a great experiment to build reciprocating engines. It requires about 70,000 horsepower to drive those ships so as to make the guaranteed speed—24 knots." If you divide the power up by reciprocating engines, we must divide it into three screws, and there would be two engines almost amidships, abreast of each other, which is an arrangement, like that in the *Minneapolis* and *Columbia*, which we built, and then have another engine room immediately aft, and we considered it a dangerous experiment to place such huge weights of machinery so far aft.

He said: "That also was our conclusion when we commenced to make investigations as to the size of the ingots which would be required for the steel forgings, shafts, and crank shafts, etc., and when you consider how much of each ingot must be rejected in order to insure a perfect forging, the ingots necessarily became so large as to be beyond the ability of the forges to fabricate and handle. The shafts would be about 30 inches in diameter and 50 or 60 feet long. The crank shafts also would be huge. Then, in addition to that, the third engine would weigh so many hundreds of thousands of tons that it would have to be placed so far aft in the structure that we did not know the effect it would have on the structure and could not afford to take the chances. So we had to take the turbine, even if everything had not been proven."

Senator LODGE. To lighten the weight?

Mr. CRAMP. Not so much for lightening the weight, but to get rid of that awful shock on the ship; and then its arrangement is better amidships. They are installed lower down in the hold, giving greater stability.

FOUR-SCREW SHIPS.

Senator LODGE. There are four screws in this class?

Mr. CRAMP. Four screws.

Senator MALLORY. The turbine has four screws?

Mr. CRAMP. It has four screws.

Senator MALLORY. Two on each side?

Mr. CRAMP. Two on each side. The center ones will almost lap each other. In the stern of the vessel they will be pretty close and there are two other screws in addition to that. Yet the ship is about 80 feet beam, and will accommodate them very well.

Senator PENROSE. Are these engines more likely to break down?

Mr. CRAMP. They are less likely.

Senator PENROSE. They are less liable to accident?

Mr. CRAMP. Yes.

Senator LODGE. You say with turbines 24 knots is the speed they expect to reach?

Mr. CRAMP. To meet the guaranty of the English Government.

Senator LODGE. We had the impression here that the turbine would reach a speed between 30 and 40 knots.

Mr. CRAMP. You can get it. It is a question of power, you know.

Senator PENROSE. It has been stated here that with turbines a voyage across the Atlantic for fast passenger or mail service could be made in three or four days, instead of the time required at present.

Mr. CRAMP. It is always bad to prophesy. It looks as if to-day we have reached the mechanical limit in the dimensions of ships. The physical conditions of the ports will prevent larger ships from being built. To obtain deeper draft the harbors must be dredged, and the ports of the world would have to be rebuilt. To economically load and discharge these huge steamships the piers must be lengthened, the docks between widened, and in fact the terminals reconstructed, and dangers of grounding are much increased by the colossal requirements in dimensions.

FORTY KNOTS POSSIBLE.

Senator MALLORY. Do you think there is any physical difficulty in driving a big ship in a rough sea at 40 knots an hour?

Mr. CRAMP. The larger the ship the easier it is driven, relatively. Big vessels like the *Cedric* are apparently unaffected by rough seas and storms that seem like fearful storms to smaller ships. But as to the speed of 40 knots, that has not been attained yet, even in smooth seas.

Senator MALLORY. Then there would not be any objection to giving them all the speed you could, with the possibility that if the sea would be very rough occasionally they would have to slow down?

Mr. CRAMP. No. They could go very rapidly when ships even as large as the *Lucania* and *Philadelphia* would slow down until they seemed at anchor.

The CHAIRMAN. Do the turbines in the proposed new British ships occupy much less space than the reciprocating engines?

Mr. CRAMP. They do not, because with the latest modifications of the turbine, which have been made so as to get an economy equal to that of the reciprocating engines, they have added to the weights, so

that the former claims as to great gains in weight and space are not borne out. The other claims hold good, being stowed lower in the hold, therefore making a very much more stable ship. The absence of vibrations in the turbine engine is particularly valuable, particularly in a man-of-war, for when in action it is necessary to have a perfectly still and stable platform. In the passenger vessels these advantages of stability and absence of vibration are important and add correspondingly to the value of them.

This question of the installation of turbine engines was so important that before the English Government made that celebrated contract with the Cunard Company they had a commission appointed of the ablest and most distinguished engineers and naval architects of Great Britain, who investigated the whole matter thoroughly and made an excellent report.

Senator MARTIN. The development so far, then, seems to be about this, that you gain a small per cent in speed and a large per cent in economy in operating it. That is about it, is it not? Now, what is

SPEED THE CHIEF ADVANTAGE.

Senator MALLORY. It is a rather larger percentage in speed.

Mr. CRAMP. I should say a large percentage in speed, and a small percentage in economy; there is also some economy in space occupied by the engines.

Senator MARTIN. I think 5 per cent in weight has been stated.

Mr. CRAMP. About 5 per cent in weight. When we gain a knot an hour at high speeds that extra knot costs always almost from 30 to 50 per cent more in power and therefore in weight. For instance, on the *Pennsylvania*, where we have reciprocating engines, we made 22 knots with about 25,000 horsepower, but to make 22.43 knots it took 29,000 horsepower. There was a gain of four-tenths of a knot, but it took 16 per cent more power.

Senator MARTIN. That same horsepower might make a little over 23 knots with a turbine.

Mr. CRAMP. It would certainly make about 23.75 knots.

Now, then, I will go back. To make 23.75 knots with reciprocating engines you would have to add 50 per cent more weight of engines and boilers to obtain the power sufficient to gain the increased speed.

THE CURTIS TURBINE.

Senator MARTIN. Has any work been done in this country in that line of mechanics corresponding with the developments in England?

Mr. CRAMP. The General Electric Company, at Schenectady, have been experimenting for certainly over seven years with what is known as the "Curtis turbine," which in many respects is preferred by engineers to the Parsons, certainly for land installation, as it seems to be superior.

They started with Mr. Curtis right at the beginning, and they have spent over \$1,000,000 in the eight years in experimentation. I do not know whether that ought to be stated, because I heard it from an official of the company, but I do not mind stating it here.

Now, these experiments were made to adopt the turbine to driving the electric generators manufactured by the General Electric Com-

pany, and had nothing to do with marine propulsion. To-day they are building 250,000 horsepower of steam turbines for land installation at the various power houses and electric-light stations over the country.

The largest installation of turbine-driven generators is at Chicago. They have something like 40,000 horsepower in operation there.

Then Mr. Curtis raised a company and built a yacht called the *Revolution*, and he has been running it for over two years. The yacht is, I think, about 160 feet long. He has been running the yacht and inviting the engineers of the country and people generally interested to go aboard and see how it works. It does work very well and reverses splendidly, but about the economy, I do not think that point has been very carefully looked into.

STILL EXPERIMENTING.

While these experiments must have cost him a quarter of a million, and the results obtained were generally satisfactory, they did not care to come into the market for Government or private work, say, for vessels like passenger vessels for the Sound or New York Bay. So they put up an experimental plant in Brooklyn. I saw Mr. Curtis in New York the other day and he says they have spent over there \$150,000 more in just trying to get over the mechanical difficulties of reducing the speed of the turbine. They have been driving it very efficiently up to 600 revolutions, but he wants to make it just as efficient and economical at 450 and not increase the size of his turbine.

Throughout the world the Curtis turbine is considered to-day as the best for propulsion, although they have done nothing yet as favorable as the Parsons.

The Parsons have had a marvelous amount of valuable experience in adapting it to ship matters, such as the shape of the screw, etc., and all those other things which can only be learned by experience.

Senator MARTIN. England is then far ahead of us in its application to ships?

Mr. CRAMP. Oh, very far, very far.

Senator MALLORY. You say that Mr. Curtis's yacht is reversible. How is that done with the turbine?

Mr. CRAMP. It is done by an arrangement inside. Is it not, Mr. Goldsborough?

Mr. GOLDSBOROUGH. Yes; they have a separate wheel. It is not carried in the forward part of the boat.

Senator LODGE. Is that demonstrated to be a success for land installation?

Mr. CRAMP. Yes, sir. Really, the introduction of this turbine for land purposes has, I will not say, made of no value, but it has reduced the value of the stock of some of the very largest engine-building companies in this country, because you can easily see that 250,000 horsepower of steam engines being distributed in the large shops of this country is an enormous factor. Now, the building of these has affected the business of some of our largest corporations, and at the same time the steam-engine builders are now adopting the manufacture of some foreign type like the Rateau type.

Senator LODGE. The Parsons turbine has been applied to high-speed destroyers?

Mr. CRAMP. Some of the most successful ones so far.

NOTABLE ECONOMY.

Senator GALLINGER. In the test between the *Amethyst* and the other ships with reciprocating engines, did I understand you correctly as saying that the *Amethyst* ran 3,160 sea miles at an average of 20 knots with 750 tons of coal, and the others ran only 2,140 knots?

Mr. CRAMP. Yes, sir.

The CHAIRMAN. I have a memorandum to that effect. So the turbine steamer ran with 750 tons of coal 1,020 miles farther?

Mr. CRAMP. Yes; Practically 50 per cent farther.

The CHAIRMAN. This is a remarkable saving of coal. Mr. Cramp, do you wish to discuss the turbine question any further?

Mr. CRAMP. No, sir.

The CHAIRMAN. I wish to ask you for some information on another phase of our inquiry, if agreeable to you. We have invited several gentlemen from the Atlantic coast to come before the Commission to-morrow and talk with us a little about postal subventions. I understood that you could not be here to-morrow and perhaps you can give us the benefit of some suggestions to-day on that point.

I will state that the Commission has not yet definitely decided upon any rates of subventions, but tentatively it has been considering the practicability of offering inducements to certain lines of steamships.

THE SOUTH AMERICAN MAIL SERVICE.

I should like to ask you, Mr. Cramp, what subventions you think would be tempting to shipbuilders to establish a line of steamships of not less than 12 or 14 knots speed from ports on the Atlantic coast to Brazil, for a fortnightly service or a monthly service? To make it more specific, do you think that for the establishment of a monthly service from the Atlantic coast to Brazil a subvention of \$150,000 a year, or double that amount for a fortnightly service, would establish a line?

Mr. CRAMP. It would, provided that agreements with the steamship company were made so that it would not prevent them from receiving subsidies from the Brazilian Government.

The old lines that were run, I believe, formerly did get subsidies from other governments, and I think the Spreckels Line also, until the Boer war, always got a subsidy from Australia and New Zealand before that time.

But, Senator, it is always difficult at first to start new lines. There is no steamship company going to South America, and it must always be made tempting to institute such new enterprises. I do not know really what would be tempting to the parties.

Senator PENROSE. How could they accept a subsidy from a foreign government and comply with their obligations to the American Government?

Mr. CRAMP. They might not have the same obligations to the foreign government, but just simply to carry the mails backward and forward. They would not be enrolled, and they would not be naval reserve vessels.

Senator MALLORY. I observe that Mr. Barrett says that the Argentine Government is perfectly willing to do that if the United States Government will do it.

A LINE TO ARGENTINA.

The CHAIRMAN. I will suggest that the Commission was favorably impressed with the idea of requiring certain conditions by the way of a naval volunteer force and the training of boys as well on steamships that accept a subvention. Supposing the Commission should think it wise to undertake to establish a line from Atlantic ports to Argentine, would you be willing to venture a suggestion as to the probable amount that ought to be provided for a line of that kind?

Mr. CRAMP. Mr. Marvin, do you know how many vessels are required for a line down there, whether four or six?

Secretary MARVIN. For a monthly line to Argentina at least three vessels would be required.

Mr. CRAMP. And how much was proposed to be given?

The CHAIRMAN. We have been discussing the question here, but as to the speed required of these vessels we had thought that 14 knots would be a proper speed. However, some objection has been made to that, and it might be lowered. What do you think about that?

Mr. CRAMP. To go much lower destroys the value of the ship from the auxiliary cruiser standpoint. Always one of the great arguments has been made that the vessels can be quickly altered into auxiliary cruisers. While it is hard to throw around conditions, yet I think that ought to be largely held in view for such long routes, because those vessels will be big carriers and will be very useful to the Government in a case of need. They ought to have twin screws, too. But it would be hard to state that also in a bill.

The CHAIRMAN. For a monthly service on that line from the Atlantic coast to Uruguay and Argentina, do you think that an actual compensation of \$187,500, and \$375,000 for a fortnightly service, would be adequate?

Mr. CRAMP. Those vessels would be, I suppose, of 6,000 tons.

Secretary MARVIN. Five thousand tons might be large enough.

Mr. CRAMP. A good way of putting that would be to finance that bonus. Say, at 10 per cent it would be \$1,870,000, and say there are three ships on that line. For about \$630,000 they could be built—all modern, steel, 5,000 tons. Of course, if much money is spent on passenger accommodations the depreciation of that kind of property is very rapid.

Have the steamship companies expressed any opinion of these rates?

ALL FAVORABLE OPINIONS.

The CHAIRMAN. They have. The president of the Ward Line and the president of the Red "D" Line have signified that they are adequate. There are two letters here which I will read and put in the record. First is a letter from Mr. Ernest C. Biss, of the Red "D" line of steamships, which is as follows:

NEW YORK, December 5, 1904.

Hon. J. H. GALLINGER,

Chairman Merchant Marine Commission,

Washington, D. C.

DEAR SIR: I am in receipt of a communication from the secretary of the Commission, asking my opinion regarding the proposed rates of compensation.

I will state that the proposed rates are the rates I have given you for three lines of steamers to South America, and in reply beg to say that, while I am not very familiar with the trade of Brazil and the Argentina, it seems to me that the proposed rates are liberal enough to induce responsible bidders to submit proposals.

Very respectfully, yours,

ERNEST C. BLISS.

There is a further letter. It is from the president of the Ward Line, dated New York, December 5, and is as follows:

MR. WINTHROP L. MARVIN,

*Secretary the Merchant Marine Commission,
Washington, D. C.*

MY DEAR MR. MARVIN: In the absence of Mr. Alfred G. Smith, who is at present in Cuba, and to whom your letter of December 1 was addressed, would say that I have perused same very carefully, and am of the opinion that the amounts of compensation as therein submitted are adequate to assure proposals from responsible bidders.

Mr. Smith will probably be here about the middle of the month.

Yours, very truly,

HENRY P. BOOTH,
*President of the New York and Cuba
Mail Steamship Company.*

MR. CRAMP. Mr. Booth has been in the South American steamship business for many years. He would be good authority on that point. I do not know any better.

Senator MALLORY. Do I understand you to say that three vessels of 5,000 tons may be built for \$650,000?

SIXTEEN KNOTS ECONOMICAL.

MR. CRAMP. For \$650,000 apiece. Really a vessel of 16 knots can be built almost as economically; I mean to say to make 16 knots on her trial trip. That would make, say, 14 knots at sea speed. And they can be run very economically, too. But when you go above 16 knots it is always at a great expenditure of coal, firemen, and an increase in operating expense in addition to the increased first cost.

Senator MALLORY. Steamers always have to stop between New York and Rio Janeiro for coal?

MR. CRAMP. Very often they stop at St. Thomas.

Senator MARTIN. This turbine engine has not been developed to such an extent as that it can be looked upon as a thing to be applied to ships of that character now, I suppose?

MR. CRAMP. I consider it as applicable to any ship.

Senator MARTIN. Ships such as we have been speaking of, of five or six thousand tons, for the South American trade?

MR. CRAMP. Yes, sir.

Senator MARTIN. If built in the near future, could not be built on that line? The development of the turbine has not been sufficient to enable the ship companies to contemplate a present application of that power to the ships?

Mr. CRAMP. If they are obtaining these results in England, and there is no doubt that these records are true, I do not see why it will not come to all ships. It is like the history of the compound engine. The compound engine was invented first about 1765, by an English engineer named Hornblower.

At the same time James Watts had perfected his plain engine, but the compound engine was not pushed, and lay dormant until a century after, when John Elder equipped a man-of-war with such engines as competitive to the old-style ones, and the results were so excellent that no other kind were afterwards considered.

Senator MARTIN. You think it has gone far enough——

Mr. CRAMP. I think so.

THE TURBINE WHOLLY PRACTICABLE.

Senator MARTIN. To contemplate the building of ships of commerce with turbine engines?

Mr. CRAMP. I think so. I do not think there is any doubt about it.

Senator MARTIN. In view of that expectation, it would be, of course, easier to get a speed of from 14 to 16 knots? Both the economy and the speed would be more easily accomplished with the turbine than under the old system?

Mr. CRAMP. I think so, because with a commercial vessel in a regular service you are more apt to drive at the maximum power, which is the economical point for the turbine, rather than on a man-of-war. A man-of-war will only use their maximum power once or twice a year to see that the machinery is all right.

The rest of the year they are cruising at low speed, which is not the economical point for the turbines. But in a merchant ship you want every ounce of material put in that will drive at 14, 15, or 16 knots.

There is one very interesting thing in this article in speaking about the power necessary to drive the vessel 23.63 knots. The actual weight of that turbine machinery was equal to the actual weight of the reciprocating engine. In one case there was 14 horsepower per ton of machinery developed, and in the other case there was 28 horsepower per ton of machinery developed. So the wise thing to do is to put in a small turbine if you want to go 22 knots, and thereby save weight of machinery and room, and add to the ordnance or to the coal radius, or to both.

THE TURBINE LESS EXPENSIVE.

Senator MARTIN. In reference to the original cost of construction as between the turbine and the reciprocating engine——

Mr. CRAMP. I believe it is in favor of the turbine.

Senator MARTIN. The original cost of construction is less?

Mr. CRAMP. I believe it is less than the cost of the reciprocating engine.

The CHAIRMAN. Mr. Cramp, can you give the Commission approximately the probable speed and cost of American ships that would compete with the Cunard steamers now being built to cross the Atlantic, and also the probable subvention that would be necessary to be given to those ships?

Mr. CRAMP. I am used to dealing with large figures, but—

The CHAIRMAN. Well, we are prepared for large figures on that point.

Mr. CRAMP. The English Government is advancing \$13,000,000 to the Cunard Company to build the two ships.

The CHAIRMAN. And gives a subvention of \$1,100,000 in addition?

Mr. CRAMP. Yes. That is six and one-half million apiece right away.

The percentage of cost of a vessel like these Cunard ships, if built in the United States, over the cost of construction in England, would not be as great as it is with cargo boats, but I do not want to get into the percentage business, because there is so much confusion on that point. I think the cost of the *Deutschland* class of vessels was estimated at \$5,000,000 apiece. Going back to the days of the *Campania* and the *Lucania*, their cost was about \$3,000,000 apiece, and the *Etruria* class of Cunard ships less than that, probably one million and a half each. So the cost of a vessel for these higher speeds is going up very rapidly. If you would want to build a ship at least as fast as those of the Cunard Company, it would certainly cost somewhere considerably over \$7,000,000, and how much more I do not know.

FEWER MEN REQUIRED.

Senator MALLORY. Mr. Cramp, I should like to ask you if you can give us any idea of the relative expense of running the turbine engine as compared with the reciprocating engine, as to the number of men necessary in the engine room?

Mr. CRAMP. It is very much less.

Senator MALLORY. It is very much less?

Mr. CRAMP. Yes.

Senator MALLORY. That would be an item then to be considered in the cost of running and operating the vessel.

Mr. CRAMP. I think Mr. Gould and two or three of the men of New York chartered large turbine yachts and in talking with those people, after several years of experience, they say there is no comparison between the two, that there are fewer oilers, less dirt, fewer repairs, and that comfort and everything else is in favor of the turbine.

Representative HUMPHREY. Mr. Cramp, can a turbine engine be installed in a ship already built, or would the cost be prohibitive?

Mr. CRAMP. Oh, no; it could be done. I think it would be a very good thing for the United States Government to give the contractors a contract to install and try the turbines and be done with it. You would have all the experience first hand then.

Senator PENROSE. We could try it on a cruiser, could we not?

Mr. CRAMP. Very easily.

The CHAIRMAN. It has been suggested that in appropriating for new ships the Government might, with propriety, provide for turbines.

Senator PENROSE. Or the next time a cruiser has to have a new engine or radical repairs made we could provide for putting in a turbine engine.

Mr. CRAMP. I believe that on the scouts authorized at the last session of Congress the Department had intended to try an experiment

by having reciprocating engines in one, and they were going to try the Curtis turbine in the second one, and the Parsons turbine in the third. But I think they have been so importuned by the inventors of different kinds of turbines that now they are going to issue their plans calling for reciprocating engines in all three, and state in the circular that bids will be received from bidders and will be considered which look to the installation of a turbine engine, putting back the trouble on the poor shipbuilder.

ECONOMICAL AT HIGH SPEED.

Senator MALLORY. From what you state I gather that in your judgment the turbine would be an economical improvement in merchant vessels which have routes they have to run by, but not necessarily an improvement in men of war, because the economical point of the turbine in great speed, and its most expensive point is when you come down to slow speed.

Mr. CRAMP. I do state that, Senator, but I think I stated that with the introduction of feed-water heaters and other devices looking to economy that disadvantage in war vessels will all be overcome. I see that in running the reciprocating engine they utilize the steam from the auxiliaries, which is a very large percentage of steam. They use that in the low-pressure receivers of the main engine, whereas in the turbine they put it into the condensers. This article states that they propose to make changes in this turbine engine and utilize that, exhausting the auxiliaries in the low-pressure turbine, which will have the effect of increasing the economy, particularly at low speed.

Senator MARTIN. But even before that difficulty is overcome, I do not see any occasion why they should not use the high speed. It is right hard to conceive of a case when it is necessary to run slow. The distance has got to be covered, and if it can be covered more economically at 16 knots—

Mr. CRAMP. You are thinking of merchant ships.

Senator MARTIN. No; I am talking about naval vessels. If it is more economical to run them fast, why run them slow?

Mr. CRAMP. It takes much more coal to cover the same distance at high speed than it does at low speed.

Senator MARTIN. I understood you to say that with the turbine that was not the case.

Mr. CRAMP. The turbine at 20 knots will go 50 per cent farther than the reciprocating engine. That is a fact. But I mean to say also that at lower speed the turbine will go very much farther than it will at a high speed.

Senator MALLORY. It costs more relatively to run a turbine at a high speed, but it costs more relatively to run it at low speed, as compared with reciprocating engines.

Mr. CRAMP. Yes; as compared with reciprocating engines.

The CHAIRMAN. Gentlemen, have you any further question? [A pause.] If not, our hearing will be closed for to-day, and the Commission will resume its conference.

WASHINGTON, D. C., THURSDAY, *December 8, 1904.*

The Commission met at 2 o'clock p. m.

Present: Senators Gallinger (chairman), Penrose, Martin, and Mallory, and Representatives Grosvenor, Minor, Humphrey, and Spight.

Also Mr. Eugene T. Chamberlain, Commissioner of Navigation.

Bernard N. Baker, ex-president of the Atlantic Transport Company, of Baltimore, Md., and J. Wilson Leakin, former counsel of the Atlantic Transport Company, appeared.

STATEMENT OF BERNARD N. BAKER.

The CHAIRMAN. At the meeting of the Commission in Baltimore, Mr. Bernard N. Baker, formerly president of the Atlantic Transport Company, gave us very important testimony, since which time the Commission has been diligent in its work, crossing the continent in search of information. The Commission is now about ready to conclude its labors, so far as hearings are concerned, but desiring some further information concerning the North Atlantic steamship interests, particularly the possibility of faster ocean mail service to Europe, several gentlemen were invited to come here to-day to enlighten us further on that point. Letters have been received from two gentlemen regretting their inability to be present, and I believe that only Mr. Baker, in company with Mr. Leakin, a gentleman who is associated with him in business, are here. We will first be glad to hear from Mr. Baker on the matter in hand.

Mr. BAKER. Mr. Chairman and gentlemen, I did not come prepared to make any definite address. In fact, the invitation was just to be here, and I rather supposed that you would want to ask some questions. If you will let me know the particular line of information desired I will be glad to give you all I can on the subject. Do you want information particularly with regard to the establishment of mail service between here and European ports?

The CHAIRMAN. That is what we have had in view, Mr. Baker. We are confronted with this situation: On the Atlantic Ocean the foreign governments have established great lines operating under large subsidies and we are cognizant of the fact that the British Government has recently advanced money to build two great steamships for the Cunard Line, giving in addition a large subvention, amounting to something over a million dollars.

The question in the minds of the Commission is as to whether or not under existing circumstances it is practicable for the Commission to recommend the establishment of a competing American line, with the distinct fact in view that a very large subvention will be necessary to accomplish that result. You may address yourself to that point.

SCOUT CRUISERS.

Mr. BAKER. I can not help but think it would be a very desirable thing to do from almost any view you look at it, the first and most important of which I should say would be the question of scout service in time of difficulty with any of the foreign countries of the world. The German Government is to-day (and I may say they are

directly interested in the Hamburg-American and North German Lloyd companies) building fast ships for the avowed purpose of being used in time of war and kept at the disposal of the Government for this purpose. Their fast line ships will act as scouts in locating the position of a competing fleet or anything of that nature, or in the location of torpedo-laying boats and the laying of mines, where they could run in quickly and disappear without any possible chance of interference. None of the big battle ships could capture them.

Then, in addition to that, there is the question of the absolute necessity that might arise some time of the rapid transfer of troops to some country, which it seems to me might be very desirable. I believe I am quite sure, from what I know of the situation, that to-day Germany or England, or even France, with its fast ships, could deliver a large number of troops to any of the countries of South America while we were getting ready to do it. So I think from that point of view it is most desirable.

As to the question of expense, and whether our country would be justified in going to the necessary expense to do it, certainly if it pays England and pays Germany I can not see why it would not pay the United States.

THE FAST MAIL SERVICE.

Then as to the mail service, it is more or less a feeling of patriotic pride in our country. We certainly ought to have the best. It is expensive, and has always cost every country a large amount to maintain fast mail service.

Of course, at the present moment we have before us the actual contract of the British Government in assisting the Cunard Company to a very large extent. It is my recollection (I will not be sure about the date) that in 1847 or 1848, when the Cunard Company was established, you will find a record of the original contract. [To Mr. Marvin.] Have you a copy of the Ocean Railways, published by MacDonald in 1894?

Secretary MARVIN. I have it not, but the Cunard subsidy began in 1840.

Mr. BAKER. In 1840. At that time, my recollection is, it was £6,590 they paid for a semimonthly voyage with a ship of 1,154 tons capacity. At a meeting between Sir George Burns, Mr. Samuel Cunard, and Mr. David MacIver to consider the question whether England would be justified in doing it or not, it was agreed that it should not be called a subsidy, but freight paid for carriage of letters; and from that day to this they have been largely subsidized.

The question of the flag and of the flag in our foreign ports is more or less a sentimental one, but I think it has a very great influence on nations and the respect of the nations of the world in seeing our flag.

TO OFFSET THE CUNARD LINE.

The CHAIRMAN. Would you be willing to give the Commission the benefit of a guess, as it might be called, as to the amount of help that would probably be required to establish a line in competition with the Cunard Line under existing conditions?

Mr. BAKER. Senator, it would have to be a pure guess. I would be willing to give it, but I have not given the matter a great deal of thought and consideration, and I would much rather give it in a day or two.

The CHAIRMAN. That will answer our purpose.

Mr. BAKER. If I can get the time to-night to make a careful calculation of the question, I will submit it to the Commission in writing. Then it must be more or less conjecture.

Mr. Baker subsequently submitted the following statement:

"BALTIMORE, MD., December 9, 1904.

"To the Merchant Marine Commission, Washington, D. C.:

"Having given due consideration to the terms of the Cunard steamship contract with the British Government, I am satisfied that the loan of \$13,000,000 by the Government to the company at the nominal rate of $2\frac{3}{4}$ per cent, and other favoring circumstances, make the annual Cunard subsidy of \$1,100,000 equivalent to \$2,000,000 or \$2,500,000 a year. The real amount of the encouragement and protection which Great Britain offers to the Cunard Line does not appear in the face value of the subsidy, but is adroitly concealed by the terms of the contract.

"Assuming, then, that the actual worth of the Cunard contract is not \$1,100,000, but \$2,000,000 or \$2,500,000 a year, I believe that a proposition would be made for a weekly line of fast mail steamers to the United Kingdom or the Continent, to consist of two steamers of not less than 25 knots speed and two steamers of not less than 22 knots speed, for the sum of \$3,000,000 per annum mail compensation for twenty years, service to begin not later than January, 1908. In other words, as against the British compensation of \$2,000,000 or \$2,500,000 a year, an American service equal or superior to the two Cunard ships and the older *Lucania* and *Campania* could be afforded for \$3,000,000. It should be distinctly understood, however, that the American contracting company should have the right to lay up one of its steamers for thirty days each year for the purpose of overhauling, supplying some more moderate speed steamer in its place—a privilege which will probably be enjoyed by the Cunard Company.

"This sum of \$3,000,000, I estimate, is less than what is being paid for the present mail contract, and the earnings of the Post-Office Department on the foreign mails over and above what is now paid for the carriage of the same.

"In addition to the mail service, I would suggest that the Government shall have the right on each steamer of first-class passage, free of cost, for any diplomatic or consular officer or officer of the Army or Navy. Moreover, at least 10 per cent of the navigating and engineering departments should be naval reserve men.

"The Peninsular and Oriental Navigation Company's report for the year ending September 30, 1903, shows profits amounting to £219,997, and the amount received, as shown by that report, for Government service was £337,048 15s. 5d.

"Very truly, yours,

B. N. BAKER.

NEVER A BETTER TIME.

Mr. BAKER. There never was a more opportune time, in my opinion, for any country to aid its merchant marine than at the present moment. We have passed through several stages of steamship building. First, we went from the wooden to the iron ships, then from the iron to the steel. There we reached a basis of construction of material the most economical. We then began, which is most important from the point of operation of the steamship, the improvement in the engine in the motive power. That began with, first, paddle wheels. That was then followed by the propeller; then the compound engine, then the triple, then the quadruple, and then the sextuple engine and the turbine.

The CHAIRMAN. We are up to the turbine proposition now.

Mr. BAKER. Yes; and it is a wonderful proposition, as far as I have been able to study and look into it. If we build them to-day they will probably become obsolete in about fifteen years by the improvements to be made in that time.

But now we are just in the turning point, and we ought to take advantage of it, I think, if for no other reason, because it would be a means of education to our people. If the turbine is going to succeed, as I believe it will, it is going to revolutionize motive power of every kind in our country.

The United States Government could not do a better thing than assist at the beginning of that effort. Other countries are doing it. England is doing it with the turbines which are being built for the Cunard Line; and I certainly think we have sufficient talent in this country—quite equal to any other, in fact—for introducing anything in the manufacturing or constructing line. But the shipyards—the shipbuilders need some assistance. They can not make a beginning unless some assistance is given.

NOT ENOUGH ON THE NORTH ATLANTIC.

The CHAIRMAN. Mr. Baker, in your judgment, would a subvention of, say, \$5 per gross ton per year do much toward building up commercial lines across the Atlantic, large ships of commerce?

Mr. BAKER. For what period, Mr. Senator?

The CHAIRMAN. Not exceeding ten years, we will say.

Mr. BAKER. No; I do not believe it would. I think you would have to extend that time. The steel ship of to-day has had but about twenty years' experience, you may call it. The life of the hull of a steel ship is estimated now at about thirty years. Sometimes the model becomes obsolete and you must change that, because it becomes unprofitable. It would have to cover a greater period than that. I would suggest a sliding scale. During the best life of a ship, which is the first fifteen years, during its money-earning life, as we would call it, the payment need not necessarily be quite as large. If you make a sliding scale, I should think it would require a great many more years than ten to justify any large increase in tonnage.

It would be a great assistance to the tonnage already existing, and on that point, from the figures I got from Mr. Chamberlain, there are to-day in the United States about 450,000 tons of what we would call over-sea tonnage, or foreign tonnage, suitable for the foreign trade.

Out of that amount certainly, in my opinion, 250,000 tons are obsolete. We have only about 200,000 tons to-day of really first-class tonnage. Of that 450,000 tons a great deal, I can not say just what proportion, is laid up to-day as being unprofitable to run under any circumstances.

The CHAIRMAN. What is the age of some of the ships?

Mr. BAKER. Over 35,000 tons out of the 450,000 are over 30 years old. Now, I am guessing.

The CHAIRMAN. That, of course, is practically useless.

Mr. BAKER. It is absolutely useless. I should judge that there are about 50,000 or 60,000 tons over 20 years old—that is, between 20 and 30 years old.

Representative MINOR. There are 35,000 tons over 30 years old?

Mr. BAKER. Yes; some of it 40 years old.

Representative MINOR. What rating would that have under Lloyd's?

Mr. BAKER. The rating under Lloyd's would not go to the age of the ship, but more to the condition. You can take a ship 30 years old and practically rebuild the engine, boilers, and so on, and get an A1 class. So the age would not affect it.

OLD SHIPS COULD NOT RUN.

The CHAIRMAN. Would it be at all profitable to run those old ships, even with a subvention of, say, \$5 a ton?

Mr. BAKER. I would not want to run them, and undertake to make money, even at \$5 a ton. Of course they would be that much better off. They exist to-day and the owners would be very glad to get it, no doubt.

Commissioner CHAMBERLAIN. In regard to most of the ships we were running over just before the hearing began, they are about 3,000 or 3,500 tons. They would get about \$15,000 a year to run some of those ships. Would \$15,000 turn the propeller of such a ship?

Mr. BAKER. No. You see most of those ships are iron, I think.

Commissioner CHAMBERLAIN. The great bulk of them.

Mr. BAKER. The great bulk of them are iron ships, and, you see, they do not carry much weight on account of the weight of their plates. When we first began building ships the idea of all naval architects was to make them just as sharp as possible—fine lines forward, a good runway, and sharp aft, too. We found by actual experience that what we call skin resistance, or friction, is the strongest against the forward part, and they moderate it by extending the beam in proportion to length. So, in a ship of modern construction the bottom is as flat as the top of this table. It is there that they get the carrying capacity with the same amount of power.

Now, a ship built twenty or thirty years ago was built on those old lines, so that it makes no difference what you do you can not compete with a ship of to-day. They can not carry at the rate per ton per knot, to say nothing of improvement in the engines. Of course, the same rule applies in regard to the old compound engine. They may put new engines in those boats, but, if so, they do not gain very much, because the carrying capacity is so much reduced in proportion to the tonnage.

STEEL SHIPS THE BEST.

Senator MALLORY. Is it your experience and observation that a steel ship will outlast an iron ship under ordinary circumstances?

Mr. BAKER. Yes; if properly taken care of. There are certain harbors that are very foul and which affect very seriously what we call the pitting of a steel ship. Of course, with iron, to get the same strength, it has to be very much thicker and heavier.

Senator MALLORY. I have heard a great deal of complaint about steel bottoms.

Mr. BAKER. Yes; in certain waters.

Senator MALLORY. It is said they do not last as the iron ship.

Mr. BAKER. Yes; in certain waters that is the case. That does not apply to the north Atlantic. They found steel far superior there. In fact, I do not know of any large iron steamship having been built in the last ten years.

Senator MALLORY. As a reason for that they do not now make iron any more. They make steel as cheaply as iron.

Mr. BAKER. Still if there was a demand for iron they would make it, you know. It is only a question of demand.

Senator MALLORY. They make steel cheaper than they can make iron.

Mr. BAKER. An iron ship is stronger, of much greater weight of material; but then you reduce your carrying capacity.

I should like to ask in making those figures on what lines I shall proceed: Would you like to know the probable cost—guess, as you say—of a line of four steamers quite equal to anything being built to-day for mail and passenger purposes?

The CHAIRMAN. That is what we should like—American built, of course.

OFFICERS AND CONSULAR MEN.

Mr. BAKER. You see the French Government make quite a point of carrying officers and consular men on their ships. Would you like to have that question taken into consideration, so as to make it a benefit to the United States to have them for the transfer of their own naval officers—it may be from one station to another, it may be army officers going to certain places, and men in the consular branch? They have certain fixed considerations given them on board the French steamers. That enters very largely into the matter, and it is quite an item to the French Government for the subsidies they pay in the saving of expense.

The CHAIRMAN. I think it would be well to take that into consideration.

Mr. BAKER. Very well.

Mr. LEAKIN. You want them to compete with the ships being built under the Cunard contract?

The CHAIRMAN. We would want them to compete with the best there are.

Mr. LEAKIN. That is, the contract of 1902.

The CHAIRMAN. There is no use for us to go into this business unless we can compete. The Post-Office Department gives the mails to the fastest ships, as a rule.

MAIL BY FASTEST SHIPS.

Mr. BAKER. The mail will be special on these. That is the case in England to-day. A very large portion of the mail—I do not know just what proportion—comes by the fast German ships, and it is a bitter complaint on the part of the other steamship companies, because they are faster. But the correspondents will direct their letters by a ship sailing that particular Wednesday or Thursday, as the case may be. A commercial man will not, out of sentiment, wait for his letter to get there by another ship, and it does not matter to him, so it is the first to leave port, whether it goes on a German or English or American ship.

The CHAIRMAN. We are confronted with that exact condition of things at the present time. The Post-Office Department wants to expedite the passage of the mails and business men insist that the mails shall be expedited.

Mr. BAKER. Very naturally.

Senator MALLORY. Mr. Chamberlain, do you know when the present contract will expire with the American Line?

AN EXPIRING CONTRACT.

Mr. BAKER. In October, 1905.

Commissioner CHAMBERLAIN. It will expire in October, 1905, and whether the Department is likely to make another contract I do not know. The Post-Office Department may not advertise for it, in the first place, and of course if they do not it drops. On the other hand, I do not know whether the company would renew the contract if it had a chance. I do not know anything about that. I have not the slightest idea on the subject.

Senator MALLORY. If they do not carry it, then all our trans-Atlantic mail will be carried by foreign steamship companies?

Commissioner CHAMBERLAIN. All of it.

The CHAIRMAN. Mr. Baker, you are fully conversant with the work the Commission has been endeavoring to accomplish. Could you off-hand make any suggestions to the Commission, from your large experience and observation, as to what, if any, plan could be suggested that would aid us in recommending legislation calculated to build up the shipping interests of the North Atlantic?

A GREAT UNDERTAKING.

Mr. BAKER. It would be a big undertaking, I think, Senator. The difficulty is in taking into consideration all the existing circumstances and all the lines of to-day—the men who have gone in the utmost good faith and built ships in the United States, hoping and trusting that some day would come when they would receive justice and protection to their interests, and all that. If you are going to do anything or advocate before Congress anything to add very materially to the present merchant marine, that has all to be taken into consideration, and it is a very difficult question. A great deal of the present American tonnage in steamships is not of a class to be profitable anywhere, and if you give enough to make them profitable

then the new tonnage, the new business to be added, need not be on quite so high a basis.

Now, I found, in going over the figures with Mr. Chamberlain, that the total amount is 450,000 tons. If you gave \$5 a ton, that would be \$2,250,000 a year; that is all. And certainly 50, if not 60, per cent of that tonnage ought not to be entitled to anything. It is worthless—it would not do any good to anybody; and I think you will find that 25 per cent of it will never claim it. So it seems to me to be a comparatively small matter.

A HUNDRED THOUSAND TONS A YEAR.

Now, then, as to how to add enough to materially increase our tonnage, say, to a million tons—a million tons is only equal to the tonnage of one of the largest companies. To-day the International Mercantile Marine alone have about a million tons in the business. If you gave them, on the same basis, \$5 a ton for ten years to put on a million tons of new tonnage it would take ten years to do it, if they took every shipyard in the United States to-day and built all the ships that they could possibly build. They could not build more than 100,000 tons a year, and that would be only \$500,000 a year. It is a trifle, Senator, compared to the other expenditures of the United States.

If you added any more to the over-sea traffic (the foreign traffic) of the United States than 100,000 tons a year, you would so demoralize the general carrying business in rates, both as to freight and passengers, it would be so unprofitable that no one would go into it, unless you would double and tripple that rate of compensation.

It seems to me that to be fair and just to the interest of shipbuilding and the steamship interests and it should be done. I think there has been a grossly exaggerated statement as to the amount necessary to do it, independent of the mail contracts, which will take a great deal of money. I am only discussing the question of cargo and what to-day is the most profitable type of a ship, the big combined passenger and freight boat. Five million dollars a year for ten years is suggested. Taking the same amount, in twenty years, with an addition of 100,000 tons of new tonnage each year for the first ten years, it would make an average payment of only \$2,500,000 a year, and that would put the United States away ahead in the way of the ordinary merchant marine and in carrying our own products.

THE PERIL OF A WAR.

Here is one of the most important points, and I have seldom seen it discussed. I understand that our export business amounts to nearly \$1,500,000,000 a year. Now, suppose Germany and England were to get into a war. English and German ships are carrying—I am only guessing again—say, 70 per cent. Suppose these two countries were to get into difficulty and their ships driven from the sea, how in the world are we going to take care of our \$1,050,000,000 of exports? This, it seems to me, is a point worth considering.

It is not going to reduce rates to the farmer very materially. I can not say that to help the case, but I do believe it is going to increase our export business. I have crossed the ocean a great many times. I

remember very well the American Line when it first came out with new American ships. I made a number of trips on them and saw the improvements which had been made. On board those ships were a number of French, German, English, and, particularly, Japanese, going all about the ship, looking at every little article, making a note of where it could be secured, because there were a great many novelties, and they would go about asking the address where this or that article was gotten. This only shows that if we build in the United States to-day new ships with improvements and send them to China, Japan, Australia, or wherever we do send them, these people always make a note of everything in a ship, and they are going to order from the section in which those improvements come. It may be a plate on the table, a knife, fork, or anything, but whatever it may be they are going to have it.

FIVE MILLIONS A YEAR ENOUGH.

Senator MARTIN. Did I understand you correctly as saying that you thought \$5,000,000 would be ample to give us a merchant marine adequate to our needs?

Mr. BAKER. Five million dollars a year for twenty years would provide all the merchant marine you could hope to get in that time, in my opinion.

Senator PENROSE. How many vessels would that be?

Mr. BAKER. Well, it is not the number of vessels, but the tonnage.

Senator PENROSE. Well, tonnage?

Mr. BAKER. I believe for \$5,000,000 a year for twenty years—I know I would undertake to do it—

The CHAIRMAN. That is better still.

Mr. BAKER. For \$5,000,000 a year for twenty years I would add 1,000,000 tons within ten years to the tonnage of the United States. It now amounts to about 200,000 tons.

Senator PENROSE. That would represent how many vessels?

Mr. BAKER. If of 10,000 tons, 100 ships. If they were of 5,000 tons, 200. I would to-day start out by building 4 ships of 25,000 tons each.

Commissioner CHAMBERLAIN. Larger than the largest now built?

Mr. BAKER. Well, about the same size. The largest is about 22,500 tons. What is the *Baltic*?

Commissioner CHAMBERLAIN. The *Baltic* is 23,600 tons, I think.

Mr. BAKER. There is not much difference.

Commissioner CHAMBERLAIN. No; but larger than the biggest ship out, and I was wondering whether you would start with building ships larger than any heretofore built.

KEEP A LITTLE AHEAD.

Mr. BAKER. I would, and just keep a little ahead all the time. You have got to do that. The difficulty with a ship of that kind is that there are so few ports to accommodate it. New York and Liverpool of all home and foreign ports would be the only two for as large a ship as that, but we are spending thousands of dollars to enlarge and deepen our channels and ports all over the Atlantic coast, you know.

The CHAIRMAN. And we are doing it for foreign ships now.

Mr. BAKER. Yes; for foreign ships entirely, and you are building the Panama Canal for foreign ships. To-day, with the exception of a few boats owned by the Pacific Mail, we are not prepared to use that canal. But it is not going to be so long. If we start to build ships to-day it will be two or three or three and a half years before they can be completed, and then, too, ships can be constructed to-day more cheaply than has been the case for twenty years.

Senator PENROSE. Do you not think it would be running a little in the ground to build ships to draw so much water? Could they not expand this type of vessel in breadth of beam without much loss of speed?

Mr. BAKER. It is easier to deepen the bottom of a channel than to widen the dock and things of that kind.

Senator PENROSE. Still that is getting to be an enormous proposition. The United States Government is confronted with projects estimated to cost six or seven hundred million dollars to deepen rivers and harbors.

SIZE MEANS ECONOMY.

Mr. BAKER. But when you look at the practical question of working a freight ship of that kind you take an amount of power per ton per knot to carry it across the ocean. We will say, for the sake of the argument, that 10,000 tons can be carried in a ship at the cost of actual transportation at \$1 a ton. When you come to 30,000 tons in one bottom you can carry it for about 80 cents a ton.

Senator PENROSE. Do you not think that tonnage could be carried in a broader ship equally as well as in a deeper ship?

Mr. BAKER. The same thing would apply then. You have got to widen all the docks, you have got to widen all the gates, and all your ports. The calculation has been made that it is cheaper and less expensive to deepen the channel than to go to the expense of widening all the docks. It is very much easier to raise the depth of water in a dock by digging at the bottom than to tear the whole dock to pieces and practically build a new one.

The CHAIRMAN. What depth of channel would be required for a 25,000-ton ship?

Mr. BAKER. About 40 feet.

Senator PENROSE. There is not a port in the United States that has a depth of 40 feet.

NEVER TO FULL DEPTH.

Mr. BAKER. No; and you see the class of cargo you have got to take in those ships. There is never a ship that goes from New York to Liverpool which is loaded down to its depth. Yet it may be full. Of course we may fill that ship with feathers and she would not draw more than 20 feet, but making a combination of measurements and weight cargo she can load sometimes. With a big ship sometimes you have to go short of cargo, but the big ship is justified by actual experience on account of the reduced rate per ton that you can transport the goods.

Senator MALLORY. Do you not think that in building a great ship you should have in view the fact that there are very few ports where you can have the certainty of getting a full cargo? You might at certain periods of the year at certain ports perhaps get a grain

cargo—grain and cotton out of Galveston or New Orleans—that would fill up one of those big ships; but ordinarily, taking it the year round, outside of the principal ports of the country—New York, New Orleans, Baltimore, Philadelphia, Boston—the probabilities are that you could not get a cargo.

Would not the loss from running with a half or three-quarters cargo militate against having such very large ships? We have ships of 20,000 tons measurement, and it strikes me if you go on beyond that you are going to have a loss of money owing to the large size of the ship.

Mr. BAKER. Looking at it from to-day, yes; but trying to look ahead and following the natural growth of this country, we can not build too large ships.

Senator MALLORY. Let me call your attention to another point bearing on that question. We can easily deepen the channel. We can deepen the channel of Charleston and Baltimore to 35 feet, but that would cost a very great amount of money. You can deepen the channel from Sandy Hook to New York City, but when you undertake to make a channel wide enough for vessels to lie at anchor and swing round I believe an incalculable amount of money will have to be expended in channels or harbors.

SURE OF THE CHANNEL.

Mr. BAKER. Gentlemen, you see what is the case to-day. The very moment those big ships get at the beginning of a channel they are not going to take any chances going through the channel unless they are certain that they can go through. It is to be done in daylight and without bad weather, and when they know they have every reasonable expectation of getting up to where the harbor is.

Senator MALLORY. Still the ship has got to be turned around. A ship seven hundred odd feet long has to have 1,500 feet in which to turn around.

Mr. BAKER. Yes; it is a big distance.

Senator MALLORY. They would all have to be deepened to 40 feet.

Mr. BAKER. How are you going to get the power and economical working without building big ships?

Senator PENROSE. To build a big ship, but a shallow ship, is my proposition.

Mr. BAKER. That can be done, too, by making a greater beam. It is all a practical question as to the size of the ships, which the steamship owner will work out himself. When I first started the London business we started originally from Baltimore to build ships of about 2,500 tons. They were considered quite large for us for some time. Next we built ships of about 6,000 tons, and I can remember people said: "You can not get a full cargo; it is a great mistake; that will never do." But those ships gradually got to be too small. Then we got up to a 13,000-ton ship, and all the ships running in our regular line between New York and London were of 12,000 and 13,000 tons. Yet it costs us an average of from 10 to 12 per cent more to carry cargo to London than it did to Liverpool, because Liverpool could use a larger ship than it was possible to use in the port of London. Now, with a 25,000-ton ship it would be useless to send it to London. You could not get up the reaches of the Thames on account of the turns, and so on.

A SHIP FOR EVERY TRADE.

So each particular trade needs a particular type and class of ship. There was a time when every shipowner built his ship for what they called general purposes. The ship was built of such a construction as to transfer it from any one trade to the other. Now it is becoming different. They are building ships for certain particular lines of trade. The *White Star* made a wonderful success. Mr. Ismay followed that out by building ships answering for Liverpool. The ships could not be used anywhere else. Take the *Baltic* and the other large boats. There are only three or four ports in the world to which they can go, but they can count on their going regularly. To New York to-day you can send one of these big ships. I know of no other port on the north Atlantic to which it could be sent, except possibly Portland.

The CHAIRMAN. You could send them to Portsmouth, N. H., but you would not get any commerce. We have 60 feet of water there.

Mr. BAKER. Yes; there are a number of places of that kind.

Senator MALLORY. Mr. Baker, to come back to your statement, I should like to get a clearer understanding of it than I have. You think \$5 a ton is too little to offer any inducement to build new ships. I understood you to say it might be a benefit to ships in existence which fall under the proper age as to classification, but that it would not add any new ships; that in order to get new ships built they would have to have a larger subsidy or subvention. And your idea is that for the purpose of utilizing these older ships which are getting out of date we should make a subvention or subsidy larger proportionately to them than to the new ships. I do not exactly understand, if I am stating it aright, what you mean. The amount named is not large enough to build new ships with, and yet you would have us give a larger amount for old ships which ultimately, of course, are bound to become useless.

Mr. BAKER. I said \$5 a ton for ten years to the old ships. Take a ship 30 years old and \$5 a ton for ten years, she would then be 40 years old. But for the new ship, if you expect them to build it, you must extend the length of time. Equalizing in this way, I made a very careful calculation and went as well as I could into what would be required. Suppose, for instance, the commission should say, "Mr. Baker, for what amount would you undertake to add a million tons in ten years to the mercantile tonnage of such a class and character as would be of benefit to the country, to own the finest class of tonnage of boats not exceeding 16 knots in speed, and under the supervision of the Secretary of the Navy for war purposes in case of need for transportation, and all that, but not going into the mail business?"

FOR \$500,000 A YEAR.

On a very careful calculation I believe 1,000,000 tons of new tonnage of that class could be added at a cost to the Government of \$500,000 a year, the first year, beginning in 1907, increasing as each 100,000 tons was added each year. With the same amount, \$5 a ton, at the end of ten years you would have, we will say, 100 10,000-ton ships, or 1,000,000 tons tonnage, for which you pay \$5,000,000 at the end of ten years. For ten years you would have to

continue that \$5,000,000 payment, and the next ten years, and at thirty years the life of that steel ship terminates. Five hundred thousand dollars a year would be equivalent to paying \$3,330,000 a year for thirty years for a million tons running exclusively in the foreign trade.

Senator MALLORY. Making 100 million dollars?

Mr. BAKER. One hundred million dollars in thirty years.

Commissioner CHAMBERLAIN. May I ask, Mr. Baker, if that is not just about capitalizing the cost of the ship? The first cost would be about \$100 a ton on that basis.

Mr. BAKER. You can carry a ship at about a depreciation of $3\frac{1}{4}$ per cent per year for thirty years. In addition to that the shipowner would have to keep the ship in condition, in repair, and everything of that kind. He would have to put in new boilers and engines. When some Department of the Government would say "That ship will not do," you must either add an equivalent amount of tonnage or have the compensation reduced pro rata. That, it seems to me, would work out very satisfactorily, adding gradually as the over-sea traffic would justify it, because, as I said, if we attempt to increase it enormously to-day no one would go into it except for such subsidies as you would not be justified in paying.

AFTER THE BRITISH EXAMPLE.

Commissioner CHAMBERLAIN. It seems to me that that is a very close adaptation, so to speak, of the Cunard proposition, as I understand it.

Mr. BAKER. Yes; in a way. It is the way the English people do. The English people know all about steamships. They have been at it so long and so profitably that they are on the right line.

Commissioner CHAMBERLAIN. It is just about the way the Cunard proposition works out, and just about the way the P. and O. contract worked for a great many years. The British Government builds the two ships for the Cunard Line—that is what it amounts to—and puts in \$13,000,000. It tells the company, "You must repay this advance, in addition to a low rate of interest, $2\frac{1}{2}$ per cent. You must repay the cost, and it will cost $2\frac{1}{2}$ per cent interest, but we, the Government, in the form of an admiralty and postal subvention, will give you enough money to repay it. We will give you upward of a million dollars a year." So you can state the proposition as it is in different terms. You can leave out the repayment of the first cost of the ship; you can leave out the subsidy, and say that the British Government gives the company the two ships, and says, "Gentlemen, go ahead and make what you can out of them."

"In return for this you must carry the mails free of charge, you must hold yourself subject to the military commands of the Government, you must carry the naval reserves and follow out all the requirements which relate really to the naval defense of the country." There is still one other consideration and that relates to the use of the other ships. As you know, all the existing ships are brought into the contract. Those are the considerations on which the British Government gives them the ships, and this proposition of Mr. Baker's would work out somewhat in the same way. Would it not?

Mr. BAKER. Yes; somewhat in the same way. To justify mail going upon it it seems to me any such contract with the Government

could be secured. It is taking a long chance, running over a period of long time. There would not many come in at first, but they would come during the ten years when the ships were in the best working condition.

The ships would average then only 5 years old. You are in a position, with modern improvements, to compete with the companies in existence, because to-day you have to meet this condition. There is enough steamship tonnage to take care of the business of the world. If you are going to add to it you must not add more than the increased business would amount to, if you expect to do it profitably. If you add a very much larger amount than that, you so force competition that it will not be profitable for anyone to do it.

Commissioner CHAMBERLAIN. Of course, to continue the comparison, if the new Cunard ships were to start out and meet with the unfortunate experience that under the turbine system is possible, according to the gentleman who spoke here the other day—that is, a general explosion of the million five hundred thousand parts—and the ships were to go down, that would not entail any loss on the Cunard company at all, if properly insured, as it doubtless would be.

THE NAVAL RESERVE.

The CHAIRMAN. In the Cunard subvention they are required to carry the naval reserve?

Mr. BAKER. Yes.

The CHAIRMAN. In making the estimate you have given in reference to American ships would you include in that a similar provision for the United States, supposing that we legislated to create a force of naval volunteers?

Mr. BAKER. Oh, yes; and in addition to that a certain number of apprentices per indicated horsepower and per ton of ship, both in the navigating and engineering departments of the ship.

The CHAIRMAN. The Commission have those two points in mind.

Mr. BAKER. I think that is very important. My good gracious! It would not cost you as much money as the Naval Academy expends for training their men. The way I look at it the Naval Academy is a beautiful place, but it must be very expensive.

Senator MALLORY. Have you thought, in connection with your ideas on this subject, of the advisability or feasibility of imposing a larger tonnage tax than is now imposed on vessels coming to the United States?

Mr. BAKER. I think that would be a great mistake. I think it would lead to retaliation upon American ships going, certainly, to some foreign countries.

Senator MALLORY. Some impose them now.

BURDENS ON SHIPPING.

Mr. BAKER. But they would increase them. There is no business in the world, gentlemen, which has been as much hampered and has been the subject of as much legislation and taxation since the foundation of the world as water traffic. It began in the early days. Take, for instance, steel manufacture, the manufacture of railroad iron, or anything of that kind. They are not compelled to keep up a hospital and pay a certain amount to take care of the sick and all that kind

of thing. They are not compelled to pay hospital dues. You go out and put lights along the coast, and the money for the general protection of those lights has got to be paid by every ship on the coast, whether you see them or not. Nothing has been the subject of as much general taxation as the shipping interests. You tax the companies, their capital, and everything of the kind in the same way.

Senator MALLORY. We do not.

Mr. BAKER. It is not so in the United States, because we have little tonnage, and you would not get very much for a tonnage tax; but in England it amounts to a very big sum. It would be very easy for England to increase their light dues, as they are called, on foreign tonnage. I do not think we could object to that if we did it.

The CHAIRMAN. If they did that their own ships would have to pay most of the dues. England could not impose it on our ships without imposing it on her own, under the treaty.

Mr. BAKER. We propose to put it on English ships.

The CHAIRMAN. And on our own.

Senator MALLORY. At the present rates they all have now.

Mr. BAKER. Then you propose to take that money and give it back to steamship owners. Where is your benefit in doing it?

Senator MALLORY. No.

Mr. BAKER. I do not understand the question then.

Senator MALLORY. Under certain conditions we might return it to them.

The CHAIRMAN. England gives a rebate to her own ships under certain conditions, and we probably would do the same to our ships.

Senator PENROSE. In raising it we raise it only to approximate that of foreign governments. In our country it is much lower than in England or France.

Mr. BAKER. Yes.

Senator PENROSE. We certainly have a right to bring it up to their standard.

Mr. BAKER. That might mean additional revenue to the Government, but how will you bring it back to the steamship companies?

A REBATE OF DUTIES.

Senator MALLORY. The point is this: If the steamship owners comply with certain requirements, more or less onerous, bearing on the naval reserve and the building up of a class of seamen, as well as the merchant marine—if they comply with those requirements after a certain length of time there will be a rebate of the tonnage dues in American ships.

The CHAIRMAN. As England does.

Senator MALLORY. England does that in some instances. Have you thought of that?

Mr. BAKER. No; I have not given it much thought. It is very strongly illustrated in the Peninsular and Oriental Steam Navigation's report for the last year. I will give you the exact figures. My recollection is that that is the best company in England. The common stock is to-day selling at \$212 a share, over 100 per cent above par. Their net earnings last year were £219,997, about one and a half million dollars. They were paid by the British Government and the Indian government, all a part of the British Government, it says, for services—I have their annual report on my desk—

£337,048 15s. 6d., which represented more than their total net earnings. The British Government paid it for services rendered, as I understand it. I have not analyzed it. They do not divide it up in their annual report, but for the carrying of mails and a certain number of officers—the carrying of officers in the Indian service to India, to Calcutta, Bombay, and those places—and it amounted to more than their total net earnings. That was the report dated September 30, 1903. There is another report.

Senator MALLORY. In what form was that paid? Was it paid in the form of a rebate of dues?

Mr. BAKER. As I said, I can not analyze it. It is just put down in that way in their report. I will send their report to the commission, so that you can get those figures exact.

LIMITING THE AGE OF SHIPS.

Representative MINOR. Mr. Baker, I wish to ask you if in your judgment it would not be a proper thing to limit the age of a ship—that it shall come within the provisions of the act providing for the payment of the subvention or subsidy, but after it shall reach a certain age would it not be well to exclude her from the provisions of any act we might pass?

Mr. BAKER. Oh, certainly.

Representative MINOR. You think it would?

Mr. BAKER. Oh, undoubtedly.

Representative HUMPHREY. What are your reasons for that, Mr. Baker?

Mr. BAKER. I will state them.

Representative SPIGHT. To what age would you limit the ship?

Mr. BAKER. I would certainly limit it to thirty years. There might be a case where so much had been expended on a ship—say, at the end of twenty years—as to make her useful again, but you are asking me now in regard to the future. You see that to-day, with the improvements which have been going on in the construction and operation of ships, it will make a ship of thirty years obsolete as a money earner, and I think the improvement will probably continue in the next thirty years. So I put the outside limit at thirty years. I would rather say twenty-five years, but certainly after thirty years a ship is not worth considering for commercial purposes.

Representative MINOR. Then another advantage might accrue. It would be an additional inducement for people to construct new tonnage if they knew these ships would go out after a certain time.

Representative GROSVENOR. And would get out of their way.

Representative MINOR. That they would get out of their way entirely, and new ships coming in would have encouragement.

Mr. BAKER. Certainly.

TWENTY YEARS A LONG PERIOD.

Senator MARTIN. Mr. Baker, are you not very liberal when you say thirty years? Would not twenty years be a pretty long period for a ship to draw a subsidy?

Mr. BAKER. I think so; but, as I said before, we know very little yet about the life of a steel ship.

Senator MARTIN. Do you not think that after drawing a subsidy for twenty years she ought to take care of herself?

The CHAIRMAN. I think the question Mr. Minor asked was as to what should be the age of the ship?

Representative MINOR. Yes; at what age should she cease to draw pay?

The CHAIRMAN. It is not that she should draw it for thirty years. She might be 20 years old when the subsidy commenced, and when she reached 30 she would cease to draw a subsidy.

Senator MARTIN. So I understood; but I was putting an extreme case. Assuming that the Government commenced to pay the subsidy when the ship first started in business, and drew it for twenty years, I asked whether it would not then be time to drop it.

Mr. BAKER. Oh, it certainly would be time. In my experience the depreciation is 5 per cent on the original cost, and at the end of twenty years it would wipe her off the ocean, and the aid is not justified.

Representative GROSVENOR. In the Frye bill the limit was twenty years.

Mr. BAKER. Yes; and it was a very proper limit, too.

Senator MALLORY. How about a limit on the class? Suppose she is classed A1. If 50 years old and classed A1, as far as commerce is concerned, she is as good as a new ship.

Mr. BAKER. That is what I said. You might spend as much money practically on her as in building a new ship.

Senator MALLORY. That would require the owner to keep her A1.

THE LARGER THE CHEAPER.

Representative MINOR. Here is another consideration. The larger we build, with the more modern ideas, practically the cheaper the freight. It is one of the objects of this Commission to cheapen transportation. If you are going to cheapen transportation you have got to keep up with modern construction.

Mr. BAKER. If the export business of the east coast of the United States would be able to be carried in 20,000-ton ships through this encouragement of the merchant marine you would reduce the cost of ocean transportation fully 20 per cent.

Representative MINOR. In order to do it it would be better to put out of this class the old and obsolete and unprofitable freight carriers, would it not?

Mr. BAKER. Yes. You are providing for them in deepening channels and harbors all the time. You are reaching out to that end and the ships are growing in the same way. No one, then, is going to-day to build a small ship for a port that will accommodate a larger ship. In London there has been a royal commission appointed, as you know, and there is a charter granted by Parliament to what is called the Dagenham Docks Company to increase the facilities of the port of London, just to take care of these big ships, because business can be done so much more economically, and they propose to go to an enormous expense to do it.

The CHAIRMAN. Unless gentlemen have some further inquiries to make the hearing is closed. [A pause.] We are much obliged to you, Mr. Baker.

Mr. BAKER. Gentlemen, the obligation is mine.

The CHAIRMAN. This will close the hearings of the Commission.

GENERAL INDEX.

A.

	Page.
Abbott, Gordon:	
Statement of	530
American merchant marine, investment of capital in	530
Adams, Hon. Robert, jr.:	
Statement of	437
Asiatic trade	439
Brazil—	
Report of Minister Adams on subsidies	439
Subsidized lines in trade with	438
Coastwise trade with South America	437, 439
Pan-American commerce	437
Rapid transit as a developer of trade	438
Admiralty subvention, Great Britain	LX, 145, 942, 1675
Adoue, Bertrand:	
Address of welcome	1483
Statements of	1488, 1501
American shipping—	
Rehabilitation	1488
Unsuccessful competition in foreign trade	1501
Food on shipboard, American and foreign compared	1501
French ships, food supply	1501
Galveston's ocean steamship lines (tables)	1503
Agricultural exports of the United States, value of	684
Aiken, Frank D.:	
Statement of	1623
Discriminating duties, with postal subvention	1623, 1624
Alaska:	
Shipping facilities	955
Trade with	954
Transport of troops and Government supplies to	955
Aldrich, H. L.:	
Statement of	294
Differential duties	925
Lake shipping, cost of construction	295
Postal subvention	925
Ship construction—	
Cost of materials	925
Relative cost of	294
Ships—	
Cost of operating	295
Wages, engineers	295
Subsidy, legislation suggested	295
Aliens, employment on American ships	31, 772
Allan Steamship Line, postal subvention	384
Allan Steamship Line, turbine engine	1830, 1845
American Association of Masters and Pilots of Steam Vessels, Crescent City Harbor, No. 18:	
Statement submitted	1549
American shipping—	
Decline of	1549
Direct aid for	1549
Import duty on fruit	1550
Inspection laws, revision of	1550
Naval reserve	1550
Officers, licensed	1551
School ships	1550
Wages of seamen	1550

	Page.
American boys in seafaring life.....	69, 1318, 1320, 1323, 1326
American capital invested in foreign shipping.....	1146
American clipper ships.....	245, 815
American consuls in foreign ports, treatment of seamen.....	370, 622
American-Hawaiian steamship route.....	1069
American labor conditions.....	1494, 1496
American Mail Steamship Company:	
"Admiral" ships.....	159
Government aid.....	158
Naval auxiliary.....	159
Operating cost.....	158
Postal contract with.....	158
Speed average.....	158
Trade to West Indies and Jamaica.....	158
American merchant flag, absence in foreign trade.....	682, 742, 845, 863
American registry:	
Foreign wrecked ships.....	1188, 1193, 1446, 1450
For foreign-built ships, regulation of.....	1038
American Seamen's Federation.....	636
American ships. (<i>See</i> Ships, American.)	
American Ship Building Company, location of shipyards.....	705
American shipping:	
Absence of, in foreign trade.....	682, 742, 845, 863
And naval development.....	1737, 1738, 1749
British enmity to.....	688
British trade, 1853 to 1895 (table).....	1769
Capital for investment in.....	30, 229, 865, 960, 986, 1556
Commercial development, 1789 to 1828.....	139
Commercial interests.....	690
Competition with foreign subsidized steamship lines.....	xv, xvi
Competition with foreign tramp steamers.....	1657
Cuban trade.....	774
Decline of.....	5, 117, 135, 139, 142, 240, 293, 309, 381, 435, 556, 577, 630, 699, 724, 1549, 1574, 1679, 1749
And commercial progress.....	1628
Substitution of iron for wood the chief factor.....	193, 1768
Under protective-tariff policy.....	1615, 1626
Effect of foreign wars on—	
Extract from "Adam Seybert's Annals," Philadelphia, 1818.....	1766
Extract from "Statistical View of American Commerce," Timothy Pitkin, New York, 1817.....	1766
Encouragement by the several States.....	686
Financial interest.....	690
Foreign discrimination against.....	556
Government aid. (<i>See</i> Government aid to American shipping.)	
Government insurance.....	1468
Historical review.....	249, 556, 1014, 1439
Importance in national defense.....	239
Industrial interest.....	689
Independent of railway connections.....	1534
Labor interest in.....	1167
Lack of continuous policy for.....	1750
Military interest.....	691
Naval auxiliary.....	32, 135, 137, 159, 307, 421, 467, 469, 932, 1685, 1713, 1729, 1743, 1756, 1809
New markets for.....	878
Officers' certificates of competency.....	1742
Panama Canal, advantages to.....	864, 1314, 1817, 1822, 1825
Plimsoll load line.....	279, 282, 367, 507, 626, 990, 1704, 1717
Political history.....	686, 691
Port charges, California.....	1279, 1291
Protection in the Constitutional Convention.....	686
Protection of, views of Thomas Jefferson in 1793.....	1677
Protection by early Congresses.....	688
Protective policy applied to.....	837, 848, 916, 937, 951, 981, 1048, 1150, 1470, 1531, 1608, 1723

American shipping—Continued.

Reciprocal relations with Navy	1655, 1656, 1664, 1683, 1684, 1737, 1738, 1749
Rehabilitation of	417, 684, 754, 797, 865, 880, 881, 912, 997, 1135, 1149, 1277, 1302, 1317, 1488, 1510, 1513, 1605, 1612, 1628, 1703, 1755, 1872
A commercial proposition	227, 306, 1543, 1614
Foreign opposition to	1688
Interest of Southern States in	1607
Labor interest in	1706
Legislation recommended	XVIII, XLVI, LI
Estimated cost of	XXXV, XXXVI
Views of the minority, Merchant Marine Commission	LVI
Military necessity	1737
National issue	1312
National defense	1656
Public sentiment unanimous for	III
Railway cooperation	229, 230, 234, 237, 865, 880
Report of Merchant Marine Commission concerning	I
Sentiment in Middle Western States	1512
Urgent need for remedial legislation	XLV
Subsidized for competition with Cunard Line	1871
Status of, extract from the New York Commercial, May, 1904	224
Taxation	1185, 1279, 1292, 1462, 1584, 1593, 1641, 1879
Tax exemption	1557, 1559, 1752
"The question of policy for"	260-269
Tonnage and comparative carriage in foreign trade before and after reciprocity agreements (table)	693
Tonnage bill of the Fifty-first Congress	226
Tonnage of, in 1903	241, 401
Tonnage, per capita, 1790 to 1890	241
Transition from sail to steam	193, 1679, 1768
Unnecessary for foreign trade	1713
American Shipping League, organization of	1510
American shipping statistics:	
American vessels entered at and cleared from the United Kingdom from 1860 to 1895	1770
Inaccuracy of, prior to 1821	1762, 1763
Indirect trade	1769
Revision of Treasury accounts in 1818	1762
Subsequent to 1821	1767
American shipyards. (<i>See</i> Shipyards, American.)	
American Steamship Company, organized 1871-72	399, 453
American steamship lines operating under contract provided for by ocean mail act of 1891	XXV
"American tonnage, causes of reduction," report presented to the Lynch committee in 1870	352
Anchorage taxes of Italy	1799
Argentina:	
Area of	677
Buenos Ayres, docks of	809
Establishment of regular steamship lines to	679, 680, 809, 810, 1861
Foreign commerce, value of	677
Foreign subsidized steamship lines to	680
Steamship facilities with United States	678, 679, 809
Trade relations with the United States	677
Effect of discriminating duties (table)	1784
Armstrong, David:	
Statement of	872
American shipping, Government aid for	873
Labor and capital	873
Asiatic crews:	
Efficiency of	1106
Food, cost per man	1134
Foreign trade	1021
Pacific coast trade	1040
Wages	473
Asiatic trade	439

	Page.
Atkins, Edwin F.:	
Statement of.....	565
American labor, wages.....	567
Ship construction—	
Cost of.....	565
Materials, cost of.....	565
Steel—	
Rebates on.....	569
Tariff reduction.....	565, 567, 570
Atkinson, Horace:	
Statement of.....	364
Boarding-house masters.....	365, 368
Crews, shipping of, in coastwise trade.....	365
Crimps—	
Abduction of seamen.....	371
Methods of.....	365, 368
Food on shipboard.....	369
Plimsoll load line.....	367
Seamen—	
Attitude of American consuls toward.....	370
Cruel treatment of.....	366
Discharge in foreign ports.....	369
Working hours.....	367
Seamen's union.....	371
Ships, undermanning.....	369
Wages of seamen—	
Advance.....	372
American and foreign, compared.....	364, 368
Coastwise trade.....	365
Atlantic Carriers' Association, food on shipboard (table).....	635
Atlantic liners:	
Character and speed.....	515
Class of freight carried.....	515
Atlantic Transport Line:	
American and foreign register, wages compared.....	1631
Annual dividends of, to time of transferring register.....	474
Crews, where shipped.....	482
Ships used as naval transports in Spanish-American war.....	467
Trade, route of.....	474
Austria-Hungary:	
Tonnage taxes.....	1802
Treaty of commerce and navigation, 1829-1831.....	255
Subsidy.....	948
Steamship lines to Brazil.....	441
Automatic machinery for handling freight.....	852, 856, 858
Avery, J. C., address of welcome.....	1573

B.

Baker, Bernard N.:	
Statements of.....	466, 1816
American shipping—	
Naval auxiliary.....	467, 469, 1866, 1867, 1968
Rehabilitation.....	1872
Subsidized for competition with Cunard Line.....	1871
Taxation.....	1879
Atlantic Transport Company—	
Annual dividends to time of transfer.....	474
Organization in Baltimore, Md.....	466
Ships used in Spanish war.....	467
Trade route.....	474
Cunard Line—	
American ships, subsidized to meet competition of.....	1871
Construction contract of 1902, rates of compensation.....	1868
Original subvention.....	1867
Foreign wars, effect on American commerce.....	1873
Freight ships—larger vessels, cheaper rates.....	1882

Baker, Bernard N.—Continued.	Page.
Freight transportation, cost per ton.....	1875
Government aid to American shipping—	
Discriminating duties.....	469
Postal subvention, fast mail service.....	469, 471, 1868
Subsidy—	
Construction bounty, competitive bids for.....	468, 472
Direct aid.....	468, 471
Export bounty.....	469
Mileage bounty.....	469
Naval auxiliary.....	467, 469, 1866, 1867, 1868
Rates of compensation.....	1869, 1873, 1874, 1877
Tonnage bounty.....	1873, 1874, 1877
International Mercantile Marine, tonnage of.....	1873
Mail service by quickest lines.....	1872
Naval policy of the United States since the Spanish war.....	467
Naval reserve.....	1879
Pacific Mail Steamship Company, limited to American-built ships.....	466
Ship construction, cost of.....	468
Ships—	
American, age limit for.....	1881
Average lifetime of.....	468
Depreciation, percentage annually.....	1878
Size, compared to depth of channels in various harbors.....	1875, 1876
Steel and iron, comparative lifetime.....	1871
Transfer of flag in time of war.....	467
Subsidy—	
Peninsular and Oriental Navigation Company.....	1868, 1880
Railway.....	470
Turbine engines for marine propulsion.....	1869
Wages, Asiatic cheap labor.....	473
Baker, Fred. A.:	
Statement of.....	763
Canals as public highways.....	765
Differential duties, constitutionality of.....	769
Irrigation of western lands.....	770
Postal subvention, constitutionality of.....	767
Railway mail subsidy.....	768
Subsidy, constitutionality of.....	763, 766
Ball, Joseph A.:	
Statement of.....	387
Philippine Islands—	
American coastwise trade.....	387
Reduction of duties.....	387
Porto Rico, coastwise trade.....	388
Ballinger, Hon. R. A., address of welcome.....	934
Baltimore, grain trade.....	475
Baltimore, hearing at.....	464-510
Bandlow, Robert:	
Statement of.....	835
Organized labor, attitude toward subsidies.....	835
Barbour, George H.:	
Statement of.....	790
Government aid for American shipping.....	790
Barges:	
Bill to provide for inspection recommended.....	621
Coal, type of.....	403
Crews.....	50, 59, 622, 1720
Manning of.....	1705
Seaboard Transportation Company.....	1719
Towage.....	61, 620, 1703, 1704, 1720
Wages of crews.....	50
Wrecked.....	45, 46, 49, 59, 61
Barr, John C.:	
Statement of.....	1097
American shipping, Government aid.....	1098
Construction bounty.....	1097

Barr, John C.—Continued.	Page.
Tonnage bounty-----	1097
Wage bounty to American seamen--	1098
Barrett, Hon. John:	
Statement of-----	677
American merchant ships in interoceanic traffic, absence of-----	682
Argentina—	
Area of-----	677
Buenos Ayres, docks-----	677
Establishment of regular mail service from the United States to-----	679, 681
Foreign commerce-----	677
Foreign subsidized steamship lines to-----	680
Steamship facilities for American trade-----	678
Trade relations with the United States-----	677
Pan-American Congress, recommendation for regular steamship service between United States and Argentina-----	682
Postal subvention, Argentina trade, commercial results of-----	682
South America, commerce with-----	677
Bartol, George E.:	
Statement of-----	308
American shipping, decline of-----	309
Cargo ships for fruit trade, comparative cost-----	310
Coastwise trade, sailors as naval reserve-----	311
Crews—	
Foreign, employment of-----	310
Serving on American ships-----	311
Officers, foreign, employment of-----	310
Ship construction, cost of-----	310
Ships, operating cost of-----	309
Sailors—	
Foreign, on American ships-----	311
Naval reserve training-----	311
Subsidy, construction bounty-----	311
Barton, W. B.:	
Statement of-----	1715
Seamen—	
Advance wages-----	1717
American-born, protection for-----	1717
Coastwise trade, should be shipped before shipping commissioner-----	1716
Contract, violation of-----	1716
Shanghaiing-----	1715
Ships—	
Overloading-----	1717
Undermanned-----	1717
Bates, Lindon W., jr.:	
Statement of-----	269
French subsidy act of 1893, ship construction under-----	269
French subsidy laws and regulations—	
Act of 1893 and 1902-----	270
Definition-----	270
Marine construction-----	270
Mercantile-marine law referring to-----	271
Vessels requisitioned by the State in case of war-----	271
Bates, Capt. W. W.:	
Statement of-----	685
American navigation—	
An infraction of compact-----	689
British enmity aroused-----	688
Encouragement of the several States-----	686
Foreign trade—	
Exports of merchandise by vessels of the principal nations, 1902 (table)-----	695
Imports of merchandise by vessels of the principal nations, 1902 (table)-----	696
Political history-----	686
Our commercial interests-----	690

Bates, Capt. W. W.—Continued.	Page.
American navigation—Continued.	
Our financial interest.....	690
Our industrial interest.....	689
Our military interest.....	691
Our political interest.....	691
Our shipping experience; tonnage and comparative carriage in foreign trade before and after reciprocity agreements (table).....	693
Ship protection by early Congresses.....	688
In the Constitutional Convention.....	686
Commercial treaties.....	698
Papers submitted—	
“The question of policy for American shipping”.....	260
“Maritime reciprocity conventions examined in detail”—	
American shipping, historical review.....	249
Austria-Hungary, treaty of commerce and navigation, 1829- 1831.....	255
Belgium, treaty of commerce and navigation and trade- marks, 1875.....	258
British “convention” for direct trade, 1815.....	252
Denmark, convention exempting American vessels from the sound and belt dues, 1857-58.....	256, 257
France, convention of navigation and commerce, 1822-23.....	254
Inferior countries having conventions.....	260
Italy, treaty of commerce and navigation, 1871.....	257
Japan, treaty of commerce and navigation, 1894-95.....	259
Netherlands, convention of commerce and navigation, addi- tional to treaty of 1852-53; articles of treaty of 1839 in- cluded.....	256
Prussia, treaty of commerce and navigation, 1828-29.....	254
Russia, treaty of commerce and navigation, 1832-33.....	255
Sweden and Norway, treaty of commerce and navigation, 1816-1818.....	253
Battle ships, construction of.....	16, 94, 1664
Beckwith, J. R.:	
Statement of.....	1555
American shipping—	
Investment of capital.....	1556
Tax exemption.....	1557, 1559
Coastwise trade monopoly.....	1558
Discriminating duties, foreign retaliation.....	1558
Freight rates, ocean trade, affected by foreign ship combination.....	1556
Ship construction, tonnage bounty.....	1559
Subsidy, uncertainty of legislation concerning.....	1557
Tonnage tax, foreign ships.....	1556
Beer export:	
Philippine Islands trade.....	921
South American trade.....	922
Shipping facilities.....	920, 922
Belgium:	
Red Star Line subsidy.....	454
Treaty of commerce and navigation and trade-marks.....	1875
Treaty of commerce and navigation and trade-marks, 1875 (abstract of articles).....	258
Bellingham, Wash.:	
Shipping statistics.....	1060
Chamber of Commerce, letter of.....	1059
Bickford, Hon. R. G.:	
Statement of.....	1670
American shipping—	
Decline of.....	1679
Government aid (President Washington’s message of December 8, 1790).....	1677
Protection for (views of Thomas Jefferson, 1793).....	1677
Rehabilitation, foreign opposition.....	1688
Transition from sail to steam.....	1679

Bickford, Hon. R. G.—Continued.	Page.
Commercial treaties, abrogation of	1688
Cromwell's navigation act	1674
Discriminating duties—	
Act of 1815, modifying	1678
American colonial policies	1675
And tonnage tax	1677
China trade in tea, First Congress	1676
Indirect trade, change of flag	1689
Policy of the Colony of Virginia	1675
Fast mail steamships—	
Naval auxiliary	1685
Subvention for	1685
Foreign trade of the United States	1682
Cost of transportation	1686
Free ships	1684
Freight ships indispensable	1687
Great Britain—	
Admiralty subvention, early instances of	1675
Development of merchant marine, historical review	1672
East India Company chartered	1673
First discriminating duty policy of	1673
Merchant ships in war	1672
Subsidy	1679, 1680, 1687
Merchant marine, importance in growth of nations (excerpts from views of eminent statesmen)	1690–1702
Merchant shipping, national need for (views of early statesmen)	1681
Naval reserve—	
Active commercial marine	1683, 1684
American wars	1686
Relations between Navy and merchant shipping	1683
Shipping expansion—	
Errors of foreign nations	1671
Geographical conditions	1670
Subsidy—	
Cunard Line	1681
First American postal subvention	1680
Foreign nations	1681, 1687
Germany	1681, 1687
Tonnage tax bill, First Congress of the United States	1676
Bigelow, Frank G.:	
Statement of	891
Lake shipping, capital for investment in	892
Bills of lading, through transit, railroad and ship	230, 234, 236
Bingham, F. F.:	
Statement of	1581, 1602
American shipping, taxation	1584
Discriminating duties, indirect trade	1582
Seamen—	
Foreign, shipped for long periods	1592
Shipping for long periods	1602
Wages, American and foreign compared	1583
Subsidy, direct aid	1581
Wages in different ports	1584
Blrd, William B.:	
Statement of	583
Commerce follows the flag	583
Free ships	585
Subsidies, commercial effect of	584
Blethen, Alden J.:	
Statement of	997
American shipping, rehabilitation of	997
Subsidy, direct aid	998
Bleyer, Julius:	
Statement of	885, 903
American shipping, direct Government aid	890

Bleyer, Julius—Continued.	Page.
Lake shipping—	
Development of	885, 887
Freight-handling facilities	889
Freight rates	889
Milwaukee shipping; historical review	886
Postal subvention	891
Ship canals of the Great Lakes, tonnage record	889
Ship canals, Great Lakes to seaboard, effect on lake shipping	903
Tonnage rebate	890
Wage rebate	890
Boarding-house masters, control of the shipping of crews	348,
	365, 368, 497, 505, 509, 563, 609, 648,
Boilermakers, wages	1456
Boston Associated Board of Trade, report of the Committee on Commerce of:	
American shipping, decline of	556
Collins Line subsidy	556
Commercial treaties	557
Discriminating duties	557, 558
Foreign discrimination against American shipping	556
Historical review	556
Merchant Marine Commission	558
Subsidy, direct aid	557
Wages, American and German compared	558
Boston, hearings at	511-674
Boston Marine Society	671
Boston Steamship Company:	
Competition with foreign subsidized lines	520
Crews—	
Nationality of	523
Wages of	523
Government supply contract	1054
Number of ships in Pacific Ocean trade	523
Pacific Ocean trade	1068
Trade route	512, 523
Boutwell, W. R.:	
Statement of	1660
Coastwise fleet	1663
Commercial prosperity and shipping decline	1660
Discriminating duties, foreign retaliation	1663
Irrigation of western lands	1664
Mutual development of Navy and Merchant Marine	1664
Ships—	
American and foreign, manning cost compared (tables)	1666
Operating cost compared	1661
Wages	1661
	1667, 1668
Subsidy—	
As an investment	1665
Direct aid	1662, 1663
Offset to operating cost of American ships	1665, 1668
Speed conditions	1669
Bowles, Admiral Francis T.:	
Statement of	92
Battle ships, cost of, comparative	94
Cargo vessels, construction cost	93
Free ships	95, 97
Ship construction, comparative cost	92, 93, 95
Shipyards, wages, American and British	92, 93
Steel plates, cost of	92, 97
Steel, tariff on	94
Subsidy, construction bounty	99
Brantley, Hon. William Gordon, address of welcome	1603
Brazil:	
Coal tonnage, trade with the United States	333
Coffee trade	845

	Page.
Brazil—Continued.	
Exports to the United States	333
Establishment of steamship lines with speed conditions	1546
Subsidized steamship lines to	438, 439, 443, 1860
Trade with the United States	v, xxvi, xxxvii, 150, 487, 492
Trade route	1519
Breakage, foreign trade transportation	893, 908, 921, 922
Bremen, Germany, tonnage and light dues	1795
Brewer, Edward M.:	
Statement of	645
Discriminating duties, retaliatory measures caused by	646
Free ships, without subsidy	645
British Columbia, dockage rates	1465
Brotherhood of Boiler Makers and Iron-ship Builders of America:	
Membership	1455, 1713
Resolutions adopted by, Government aid to American shipping	1454, 1713
Brown, Alexander E.:	
Statement of	851
Freight handling—	
Lack of terminal facilities	854
Automatic machinery	852, 856, 858
Charges	853, 857
Freight-handling methods—	
Bulk, and general cargo	856, 857
American and foreign compared	852, 853, 855, 857
Freight measurements, American and foreign	853
Freight rates on iron ore	859
Brown, W. L.:	
Statement of	675, 705
American Shipbuilding Company	705
Coal cargoes, time consumed in unloading	708
Freight ships on the Great Lakes—	
Operating cost	707
Size of	707
Lake shipping—	
Freight rates	708, 711
Freight handling, rapidity of	709
For trans-Atlantic operation	710
Natural protection	706, 709
Wages of seamen	711
Ship construction on the Great Lakes—	
Cost of	706
Stagnation	705, 710
Standardizing	706
Shipyards, Canadian	706
Brunswick, Ga., hearing at	1603, 1627
ships in foreign trade (table)	1609
Buckman, C. C.:	
Statement of	508
Ships, average operating cost	509
United Fruit Company—	
Chartered ships of	508
Nationality of crews	508
Number of ships employed	508
Burley, Thomas Sydney:	
Statement of	1091
Free ships, limited period	1093
Mail contracts	1093
Officers, pay of, percentage of ship's earnings	1093, 1094
Ship construction, cost of	1092
Transport service	1093
Wages, American and British compared	1093
Burns, George:	
Statement of	771
American crews, protection of	772
American shipping, protection of	771
Naval reserve	774
Pacific Ocean trade, employment of alien crews in	772

	Page.
Burns, W. J., address of welcome.....	1109
Buryeson, F. H.:	
Statement of	209
Crews—	
Class of men employed.....	217
Shipping of	218
Union and nonunion	215, 216, 218
Holidays on shipboard	210
Officers, American	211
Seamen, treatment of	211, 212, 215
Ships, American—	
Crews, working hours.....	210
Food rations	213
Lifeboat requirements.....	216
Undermanning	210, 217
Wages—	
American seamen.....	215
British seamen	215
Sailors' union scale	217
Buxton, Hon. Samuel R.:	
Address of welcome.....	1627
American-built ships, direct aid or discriminating duties.....	1629
American commercial progress and shipping decline	1628
American shipping, rehabilitation	1628
Shipyards, American, direct aid.....	1629

C.

Cadets, merchant steamships.....	120, 127, 128, 1323, 1326
California Harbor Association of Masters and Pilots, legislation suggested..	1315
Calkin, Hon. Harvey C.:	
Statement of	101
Ship construction, cost of labor	102
Canada:	
American merchandise in.....	874
Bounty to deep-sea fishers.....	1011
Coastwise-trade laws of	824
Grain exports of	337
Lake shipping, tonnage of	739
Reciprocity in coast trade	829
Ship-canal route.....	759
Shipyards	706
Canadian Pacific steamship subsidy	938
Canada-Mexico steamship subsidy.....	986, 1013, 1041, 1479
Candage, Capt. R. G. F.:	
Statement of	575
Seamen—	
Abduction of	576
Revision of navigation laws concerning.....	576
South American trade.....	575
Subsidy—	
Direct aid.....	575
Naval auxiliary	575
Capital:	
American, invested in foreign shipping.....	1146
Investment in American shipping	30, 525, 530, 865
Investment in Norwegian ships	1497
Capital and labor.....	873, 874
Cargo vessels (<i>see also</i> Freight ships):	
American	1290
Construction cost	36, 38, 41, 75, 93, 425, 641, 1544
Fruit trade	310
Lake shipping—	
Carrying capacity.....	707, 735, 738, 743, 900
Dimensions	707, 738, 825, 900
Operating cost.....	707
Lower rates with larger ships.....	896

Cargo vessels—Continued.	Page.
Mileage bounty-----	574
Need of-----	1519, 1687
Ocean and lake loading cost-----	714
Speed conditions-----	580, 581
Speed subsidy-----	123, 426, 672
Time consumed in unloading-----	714, 789, 900
Tonnage-----	714, 739
Type for American trade-----	17, 42
<i>Wolverin</i> , carrying capacity-----	707, 738, 900
Carleson, N. P.:	
Statement of-----	1474
School-ships—	
For American seamen-----	1476
Foreign-----	1477
Licensed officers, navigation laws concerning, revision-----	1475
Seamen, American, treatment of-----	1475
Case, F. E.:	
Statement of-----	842
Export trade, difficulty in securing rapid transit-----	842
Foreign shipping connections needed in export trade-----	843
Merchandise shipped through foreign forwarding agents-----	842
Ocean freight transportation, forwarding agents for-----	842
Central America:	
Steamship lines to and from Galveston, Tex-----	1508
Trade with United States-----	143, 1773
Central Labor Union, Newport News, Va.:	
American shipping rehabilitation, labor interest in-----	1706
Ship construction, ability of American mechanics-----	1707
Chartered steamships-----	1530
Freight rates-----	1638
Chamberlain, Hon. Eugene Tyler, Commissioner of Navigation:	
Statement of-----	1757
American shipping in British trade; tonnage of American and British shipping entered and cleared with cargoes in Great Britain in trade with the United States, 1853 to 1895 (table)-----	1769
American shipping—	
Substitution of iron for wood the chief factor in decline of-----	1768
Effect of foreign wars on (extract from "Adam Seyberts' Annals," Philadelphia, 1818)-----	1766
Effect of foreign wars on (extract from "Statistical View of American Commerce," Timothy Pitkin, New York, 1817)-----	1766
Export trade statistics prior to 1821, inaccuracy of-----	1763
American shipping statistics—	
Inaccuracy of, prior to 1821-----	1762, 1763
Indirect trade-----	1769
Revision of Treasury accounts in 1818-----	1762
Subsequent to 1821-----	1767
American vessels entered at and cleared from the United Kingdom, 1860 to 1895 (table)-----	1770
British light-dues act, provision concerning Royal Naval Reserve. 1803, 1804	
Commercial treaties—	
Provisions as to indirect trade-----	1785
Views of John Quincy Adams-----	1760
Discriminating duties—	
Indirect trade—	
Abolition of the free list-----	1778, 1780
Application of (table)-----	1777
Argentina-----	1784
China and Turkish Empire-----	1783
Effect on import trade of the United States--- 1778, 1779, 1780, 1786	
Foreign nations whose exports to the United States are practically on the free list-----	1780, 1781
Foreign retaliation-----	1776
France and possessions-----	1781, 1782
Germany and possessions-----	1781, 1782
Great Britain and possessions-----	1777, 1778, 1779

Chamberlain, Hon. Eugene Tyler—Continued.	Page.
Discriminating duties—Continued.	
Indirect trade—Continued.	
Japan	1784
Philippine Islands	1785
Sweden and Norway	1785
Switzerland	1784
Resolution of the House Committee on Commerce, March 15, 1822	1759
Retaliation	1804
Against American exports	1761
Not confined to shipping	1759
The original purpose of American discrimination	1758
Views of John Quincy Adams	1759
Views of Henry Clay	1758
Views of Albert Gallatin	1758
Views of Thomas Jefferson	1758
Discrimination and subsidies	1804-1806
Foreign trade—	
Tonnage of American and foreign vessels entering the United States from 1789 to 1820 (table)	1764
Tonnage of American and foreign vessels entered and cleared the United States from 1821 to 1895 (table)	1767
Free ships, foreign trade	1788
Free trade, views of John Quincy Adams	1761
French policy of discriminating duties, American retaliation	1783
Import trade of the United States—	
Cuba—	
Effect of discrimination on	1786
Special relations with	1786
Statistical tables compiled from returns of the Bureau of Statistics	1771
Tonnage entered and value of imported cargoes—	
Africa	1774
Asia	1773
Central America	1773
Europe	1772
North America	1774
Oceania	1774
South America	1772
West Indies	1773
Whale fisheries	1775
Recapitulation	1775
Licensed officers, letter concerning	1298
Ship construction, tonnage built, American and Great Britain, 1858 to 1861 (table)	1769
Subsidy, a matter of national defense	1805
Tonnage taxes—	
And bounties paid, French shipping	1797
And light dues, Bremen, Germany	1795
And light dues, River Weser, Germany	1795
At Lake ports, year ended June 30, 1904	1803
Austria	1802
Basis of computing	1801
Denmark, no charges	1803
Effect of reciprocity on	1796, 1797
France	1796, 1797
Germany	1793
Great Britain	1792
Light dues act	1789
Provisions favoring sailing vessels	1792
Scale of payments	1790
Hamburg, Germany	1793, 1794
Italy, anchorage taxes	1798, 1799
Netherlands, exemption	1801
Norway	1800
Spain	1800

	Page.
Chesebrough, A.:	
Statement of	1312
Direct aid for both steam and sail	1315
Rehabilitation, a national issue	1312
Naval auxiliary	1313
Panama Canal, advantages to American shipping	1314
Transport service, Japan	1313
Chesapeake and Ohio Railway Company:	
Export trade, British ship-construction contract	1635, 1637
Freight ships	1638
Nationality of officers and crews	1040
Grain export	1711
Ship repairs	1641
Ship supplies, where purchased	1641
Chester, W. R.:	
Statement of	673
American merchant ships as naval auxiliary	673
Subsidy, direct aid	674
Chicago, hearings at	675-728
Chilcott, Richard:	
Statement of	1013
American shipping, historical review	1014
Canada-Mexico steamship subsidy	1013
Export bounty	1019
Foreign trade—	
Asiatic crews	1021
Regular line steamships—	
Government aid for	1017, 1019
Proposed route schedule	1020
Freight rates, export trade	1020
Marine insurance	1024
Naval auxiliary	1021
Postal subvention	1019
South American mail facilities	1019
Subsidy, commercial effect of	1013
Chinese seamen:	
Cheap labor	617, 620, 834
Employment of	175, 616, 1088, 1102
Exclusion of	982
Foreign subsidized lines in Pacific trade	619
Gulf Transit Company	1598
Wages	618, 939, 1087
Christie, John H.:	
Statement of	1591
American shipping, taxation	1593
Schooners—	
Accommodations for seamen	1593
American, in lumber trade	1591
American and foreign, cost compared	1592
Wages compared	1592
Seamen—	
Shipping of	1593
Violation of contracts	1594
Church Missionary Society for seamen	278
Clarke, Col. Albert, Secretary, Home Market Club:	
Statement of	530
Committee on commerce of the Associated Board of Trade of Boston, report of—	
American shipping, decline of	556
Commercial treaties	557
Collins Line subsidy	556
Discriminating duties	557, 558
Foreign discrimination against American shipping	556
Historical review	556
Merchant Marine Commission	558
Subsidy, direct aid	557
Wages, American and German, compared	558

Clarke, Col. Albert—Continued.	Page.
Discriminating duties	561
Home Market Club, canvass of public opinion concerning methods for developing American shipping. (<i>See</i> Home Market Club.)	
Postal subvention	560
Subsidy, constitutionality of	553
Wages, American and German, compared	550
Cleveland, hearings at	791-882
Clyde, Thomas:	
Statement of	5
Aliens, employment on American ships	31
American shipyards, why idle	18
Capital—	
Investment in American shipping	30
Of Great Britain invested in ships	11
Charts, designed to show comparative natural and artificial efficiency of maritime nations as regards elements of cost of carrying competitive cargoes in ships of said nations	7, 35
Coastwise trade competition	23
Crews, nationality of	21
Free ships—	
Coastwise trade restriction	32
With operating bounty	25
Freight ships, type for American market	17
Germany—	
Construction subsidy	11
Ship construction of	11
Government aid to shipping—	
Construction bounty	19
Operating bounty	19
Great Britain, ship construction, cost of	28
Marine competition	8
Naval auxiliary, American ships as	32
Postal subvention	23
Seamen, preference for American ships	20
Shipbuilding for speculation	17
Ship construction—	
Battle ships	16
Cost of	9, 15, 25
Ships—	
Maintenance, cost of	10
Operating, cost of	13
Repairs	10
Standardizing	14
Subsidy—	
Constitutionality of	26
Direct	29
French	24
German	11, 24
Wage scale under different flags	19, 21
Wages, American and foreign	19, 21, 22
Coal:	
Cargoes—	
Time consumed in unloading	708, 789, 900
Unloading with improved machinery	901
Cost per ton f. o. b. in America	328, 332
in Great Britain	328, 332
Export of Great Britain	228
Export from United States to Brazil	332
For American Navy, where purchased	329
French imports of	329, 332
Ocean freight rates	328
World's tonnage	338
Coastwise trade:	
American vessels exclusively	526
A monopoly	1558

Coastwise trade—Continued.		Page.
Atlantic to Pacific, free ships	-----	1140
Class of vessels employed	-----	1485, 1663
Competition	-----	22
Crews—		
Discharge of	-----	562
Shipping	-----	285, 365
Crimping	-----	374, 451
Foreign-built tramps	-----	428
Foreign ships, American registry for	-----	82
Free ships	-----	428
Freight-handling methods	-----	855
Laws—		
Applied to American outlying territory	-----	1293
Beneficial to lake shipping	-----	870
Extension to Philippine Islands	-----	387, 811, 1073
Revision	-----	349
Licensed officers	-----	349
Pilotage	-----	349, 777, 989
Porto Rico	-----	387
Protected	-----	343, 1485
Puget Sound to New York City	-----	1069
Reciprocity with Canada	-----	829
Sailing vessels	-----	296, 526
Seamen—		
Naval reserve	-----	311
Class of	-----	347
Negro	-----	347, 350
Should be shipped by shipping commissioner	-----	1716
Treatment of	-----	212
Ship construction	-----	77, 80
Free material	-----	109
Undermanning of vessels	-----	1703, 1704
Wages	-----	151, 156, 157, 365, 396, 527, 1291
Dominated by unions	-----	563
Steward's department	-----	1452
With South America	-----	437, 439
Coastwise Transportation Company:		
Sailing vessels	-----	669
Wages	-----	669
Coffee trade:		
Brazil	-----	845
New Orleans	-----	1529
Cohen, B. I.:		
Statement of	-----	1168, 1180
Discriminating duties—		
Direct trade	-----	1170
Indirect trade	-----	1180
Naval auxiliary	-----	1171
Postal subvention for American lines	-----	1169
Seamen, American, as naval reserve	-----	1169
Tonnage rebate	-----	1171
Collins Line:		
Collapse of	-----	1303
Competition with British steamship lines	-----	289
Historical	-----	1699
Subsidy	-----	289, 304, 453, 556, 629, 1303, 1699
Commerce follows the flag	-----	513, 583, 847
Commercial prosperity and shipping decline	-----	1660
Commercial statistics, compiled from Journal of Commerce	-----	1526
Commercial treaties	-----	322, 335, 434, 557, 698, 919, 1760, 1785
Abrogation	-----	1111, 117, 140, 148, 245, 354, 757, 918, 1198, 1688, 1814
Abstract of articles—		
Austria-Hungary	-----	255
Belgium	-----	258
Denmark	-----	256, 257
France	-----	254

Commercial treaties—Continued.	Page.
Abstract of articles—Continued.	
Great Britain.....	252
Italy	257
Japan	259
Netherlands	256
Prussia, 1828-29	254
Russia	255
Sweden and Norway.....	253
And discriminating duties.....	89
Views of John Quincy Adams.....	1760
Provisions as to indirect trade.....	1785
Violation by foreign governments.....	919
Construction bounty	19,
99, 189, 292, 304, 311, 503, 522, 890, 1056, 1098, 1467, 1469, 1861	
Competitive bids for	472, 476
Cook, Joel:	
Statement of	299
American shipping, protective policy applied to.....	302
Free ships in the foreign trade.....	300, 303
Pacific Ocean trade—	
Food rations	301
Officers, pay of	301
Operating cost compared.....	301
Wages compared	301
Postal subvention.....	303
River and harbor expenditures.....	299
Ship construction, cost of labor.....	302
Ships, operating cost, compared	301
Statistical table, wages.....	301
Subsidy—	
Direct	303
Tonnage bounty	303
Corliss, Hon. J. B.:	
Statement of	787
Differential duties, direct trade.....	788
River and harbor improvements.....	787
South American trade, reciprocity treaties	788
Subsidy	787
Coulby, Harry:	
Statement of	877
American shipping—	
Government aid	880
Market expansion for.....	878
Railway cooperation	880
Rehabilitation of	880, 881
Foreign commerce of the United States, trade facilities.....	879
Seamen, American, naval reserve.....	880
South America, "triangular" trade route to.....	879
Trade routes by direct line.....	879
Countervailing duties, sailing vessels.....	1044
Craig, John:	
Statements of	99, 814
American-built ships—	
As cup winners.....	815
For the trade of the United Fruit Company.....	815
American clipper ships	815
American shipbuilders, ability of.....	815
American shipyards, strikes.....	817
Great Britain—	
Ship construction—	
Class of labor employed.....	101
Wages	101
Labor conditions in shipyards, American and foreign.....	817
Lake shipping, development of.....	100
Protection for everything but ships.....	816

Craig, John—Continued.	Page.
Ship construction, cost of, comparative.....	816
Subsidy, commercial effect of.....	100
Cramp, Charles H.:	
Statements of	352, 452
American Line, organization in 1871-72.....	453
"American tonnage, causes of the reduction," report presented to the Lynch committee in 1870	352
Collins Line.....	453
Commercial treaties, abrogation of.....	354
Cunard Steamship Company—	
Agreement with British Government.....	456
Organization of.....	453
Postal subvention of 1868.....	453
Special subsidy of 1902.....	456, 458
Discriminating duties—	
Foreign retaliation.....	354
Senator Elkins's speech	353
Foreign subsidized steamship lines, extract from report of F. H. Morse, United States consul-general in Great Britain.....	452
Germany—	
Emperor of, merchant-marine policy.....	460
Merchant-marine expansion.....	363
Progress in shipbuilding.....	455
Competition with Great Britain.....	460
Great Britain—	
Empress Line subsidy.....	457
Foreign war ships built in.....	459
Growth of merchant marine	454
The greatest subsidizer.....	456
Subsidized steamship lines	453, 458
International Mercantile Marine Company.....	455
Lodge bill to regulate commerce with foreign nations, etc. (S. 2154, 58th Cong.).....	356
Marine insurance, etc	361
Mail service.....	359
Tariff duties.....	357
Tonnage duties.....	356
Marine-engine construction, British subsidy for	458, 459
Morgan steamship merger.....	453, 455
Red Star Line, subsidized by Belgian Government.....	454
Ship construction, American, British opposition to.....	355
Shipyards, wages	363
Subsidy—	
British naval subvention.....	453
Report of the Lynch committee of 1870.....	452
Cramp, Edwin S.:	
Statements of	422, 1842
Cargo vessels, cost of.....	425
Coastwise trade	428
Commercial treaties	434
Discriminating duties, indirect trade	426, 430
Free ships—	
Coastwise trade.....	428
Commercial effect.....	426
Great Britain, loans on marine property.....	433
Lake shipping, freight rates	432
Postal subvention.....	426, 430
Ship construction—	
Cost of.....	425
Great Britain, volume of	424
Labor-saving devices in	424
Materials, cost before Spanish-American war.....	423
Quality of foreign	432
Wages	423

Cramp, Edwin S.—Continued.	Page.
Ships—	
High-class passenger, cost of.....	425
Repairs.....	427
Shipyards, Great Britain, specialties of.....	424
Steel plate, cost of, prior to Spanish-American war.....	423
Subsidy—	
Argentina, proposed steamship line to.....	1861
Cunard Line.....	429, 1864
Commercial effect of.....	432
South American steamship lines.....	1860
Speed bounty.....	426
Turbine engines for marine propulsion.....	1842
Allan S. S. <i>Victorian</i> , speed test.....	1845
British experiments in use of, for channel vessels.....	1845
British experiments in use of, for navy.....	1843
Coal consumption.....	1844, 1845, 1852, 1854, 1860
Construction cost compared.....	1863
Cruisers.....	1843, 1864
Cunard Line experiments.....	1856
Curtis engine.....	1858
Economy of.....	1843, 1844, 1846–1856, 1860, 1865
Maneuvering capabilities.....	1844, 1846
Men required in engine room.....	1864
Practicable.....	1863
Reversing problem.....	1846
South American trade.....	1862
Space occupied.....	1857
Speed tests.....	1844, 1852, 1853, 1855, 1857, 1858, 1865
“The Economy of Steam Turbines in Cruisers” (from Engineering, London, November 18, 1904).....	1846
Analysis of coal consumption results.....	1852
Analysis of water consumption results.....	1851
Boiler results at full power.....	1848
Maneuvering capabilities.....	1846
Results of steam trials of H. M. S. <i>Amethyst</i> , with Parsons’s steam turbines.....	1849
Results of steam trials of H. M. S. <i>Topaz</i> , with reciprocating engines.....	1850
Torpedo-boat destroyers.....	1843, 1846, 1859
Vibration.....	1858
Water consumption.....	1853, 1854
Weight of machinery.....	1855, 1863
Wrecked vessels, repairing in American shipyards.....	428
Crawford, H. D.:	
Statement of.....	1077
Grays Harbor, Washington, shipyards.....	1078
Pacific coast lumber trade.....	1078
Crews (<i>see also</i> Seamen):	
Alien—	
Pacific Ocean trade.....	772, 939
Tax on.....	1293
American.....	211, 522, 1348
And Asiatic compared.....	1103
And foreign compared.....	1289, 1490
Fewer men per ship.....	1495
Protection of.....	772
Asiatic—	
Efficiency of.....	1106
Food cost per man.....	1134
Foreign trade.....	1021
Pacific coast trade.....	1040
Atlantic Transport Line, where shipped.....	482
Barge.....	50, 59, 622, 1720
Briery.....	674
Class of men employed.....	217

Crews—Continued.	Page.
Chinese—	
Employment of.....	175, 616, 1088, 1102
Exclusion of.....	982
Gulf Transit Company.....	1598
Pacific Ocean trade.....	627, 939, 982, 1040
Wages.....	939, 1087
Chinese and European wages compared.....	1341-1346
Congenial routes.....	1321
David, nationality of.....	419
Desertion.....	562, 637, 639
Discharges in foreign ports.....	397, 602
Demand for survey of vessels.....	599
Foreign, employment of.....	310, 311
Free.....	1319, 1321
Mallory Steamship Line, nationality of.....	1500
Nationality.....	1175, 1319
Pacific Ocean trade.....	1086
Transport service, United States Army.....	1438
Unrestricted.....	383, 501, 1489, 1493
Naval reserve training.....	120,
128, 311, 419, 851, 880, 1040, 1133, 1169, 1190, 1316	
Navigation laws, revision of.....	989, 1153
Pacific Mail Steamship Company, nationality.....	1348, 1390-1408
Quarters.....	58, 64, 207, 209, 221, 373, 506, 600, 639, 970,
1082, 1276, 1516, 1565, 1568, 1570, 1593, 1599, 1659, 1705, 1708	
Lack of water.....	497, 499, 506
Navy of the United States.....	634, 639, 641
Ventilation.....	497
Schooners, number of men.....	1595
Shipping of.....	55,
114, 218, 285, 345, 365, 372, 379, 397, 448, 497, 505, 563, 602, 1337	
Shipping agents' compensation.....	449
Swedish steamers in lake trade.....	823
Union and nonunion.....	215, 218
Violation of contracts.....	54, 56, 65, 114, 168, 462, 495, 505, 529,
562, 604, 637, 639, 647, 973, 1080, 1458, 1465, 1567, 1594, 1716	
Wages.....	113, 326, 339, 561, 1478, 1490
American and foreign.....	1286, 1347
American Sailor's Union schedule.....	153
In different ports.....	339
Steward's department.....	1452
Transport service, United States Army.....	1438
Crimping.....	313, 365, 368, 371, 372, 379, 395, 448, 450, 497, 509, 605, 609, 648, 1658
562, 604, 637, 639, 647, 973, 1086, 1458, 1465, 1567, 1594, 1716	
Crowell, Dr. John Franklin:	
Statement of.....	196
American shipbuilding.....	200
Discriminating duties, commercial effect of.....	196, 205
Free ships, limited period.....	197, 201
Freight rates—	
Cotton, New Orleans to Europe.....	203
Grain, Boston to Liverpool.....	202
Pacific coast.....	202
Through transit.....	203
Wheat (statistical table).....	204
Ocean commerce—	
Freight rates, decrease of.....	196, 202
Tonnage increase.....	196, 202
Officers, American.....	198
Ships—	
American, operated under foreign register.....	201
Cost of operating, comparative.....	198
Subsidy, commercial effect of.....	196, 203
Wheat freight rates (statistical table).....	204
World's merchant marine, 1895-1900-1903 (table).....	202
Crowley, Capt. John G.:	
Statement of.....	668

	Page.
Crowley, Capt. John G.—Continued.	
Coastwise Transportation Company—	
Sailing vessels.....	669
Wages.....	669
Sailing vessels—	
Pay of officers.....	670
Undermanning.....	669
Lawson, sailing vessel.....	670
Cuba:	
Shipping reciprocity.....	XLIII, 775, 777
Ships under flag of.....	776
Sugar export.....	775
Cuban trade, absence of American ships in.....	1610
Cunard Steamship Line:	
Agreement with the British Government, 1902.....	456, 458, 1807
Construction contract of 1902.....	xv, XLV, 941, 1128, 1622, 1864, 1868, 1878
Experiments with use of turbine engines.....	1856
Organization of.....	453
Original subvention.....	1867
Postal subvention.....	340, 453, 808, 941, 1807
Subsidy.....	LXVI, 144, 429, 629, 663, 938, 1146, 1150, 1309, 1606, 1607, 1681
Cushman, Hon. Francis W.:	
Statement of.....	1089
American shipping, Government aid.....	1090
Ship construction, labor cost.....	1090
D.	
David, steamship:	
Nationality of crew.....	419
Wages under American and Norwegian flags.....	153, 287, 288, 419
Davies, D. Thomas:	
Statement of.....	988
Motor boats, inspection of.....	990
National load line.....	990
Navigation laws—	
Crews, revision concerning.....	989
Officers, revision concerning.....	989
Pilotage.....	989
Postal subvention.....	991
Davis, Lincoln:	
Statement of.....	1084
Lumber-trade statistics, Willapa River and Harbor, Wash.....	1084-1086
Dearborn, George S.:	
Statement of.....	296
Coastwise trade, sailing vessels in.....	296
Discriminating duties.....	296
Subsidy, direct.....	297
Denison, J. B.:	
Statement of.....	1499
Mallory Steamship Line—	
Crews, nationality of.....	1500
Officers, nationality of.....	1499
Denmark:	
Convention exempting American vessels from the Sound and Belt dues, 1857-58.....	256, 257
Tonnage tax exemption.....	1803
Desertion. (<i>See</i> Crews and Seamen.)	
Detroit, hearings at.....	728-791
Devol, Maj. C. A., U. S. A.:	
Statement of.....	1422
Transport service—	
Government competition with merchant marine.....	1435, 1437
Vessels, cost of equipping.....	1437
Transport Service, United States Army:	
Abstract of expenditures for voyages during fiscal year 1903, compiled on basis of "Seattle bid".....	1432
Abstract of expenditures for voyages during fiscal year 1904, compiled on basis of "Pacific Mail bid".....	1431

Devol, Maj. C. A., U. S. A.—Continued.	Page.
Transport Service—Continued.	
Charter rates—	
Fiscal year 1904.....	1423
Spanish-American war.....	1423
Chartered vessels for Spanish-American war.....	1423
Crews—	
Nationality	1438
Wages.....	1438
Deterioration	1434, 1436
Insurance	1436
Report of expenditures, etc., of army transport <i>Logan</i>	1427
Report of expenditures, etc., of army transport <i>Thomas</i>	1424
Reserve transports	1437
Dickie, George W.:	
Statement of.....	1412
Free ships—	
Effect on American shipyards.....	1416
Repairs	1417
Ship construction—	
American shipyard facilities	1415
British shipyard facilities	1415
Designs	1412
Labor cost.....	1412
Materials, cost of.....	1415
Naval requirements excessive	1417
Shipyards—	
American, naval contracts	1416
America and Great Britain, wages compared (table).....	1413
Government, dependence on commercial yards for better class of labor.....	1418
Government and commercial, repair work, cost of.....	1421
Government and commercial, wages compared.....	1419
Standardizing in	1419
Differential duties. (<i>See Discriminating duties.</i>)	
Discriminating duties:	
Act of 1815, modifying.....	1678
American colonial policy.....	1675
And cotton trade.....	912
And tonnage bounty.....	1722
And tonnage tax.....	1677
Commercial effect -- 143, 149, 150, 196, 205, 295, 302, 305, 315, 321, 383, 469, 574	
Commercial treaties, abrogation of..... LIII, 245, 557, 757, 1486, 1814	
Constitutionality of	572, 769
Direct trade..... 37, 38, 84, 86, 196, 205, 249, 788, 898, 1142, 1170, 1188	
For limited period.....	1702
Effect on American shipping	87
Effect on coastwise trade	149
Effect on Pacific coast trade.....	1201
Effect on trade with Cuba.....	1786
Elkins, Hon. Stephen B., speech of.....	353
French policy, American retaliation for.....	1783
Historic American policy..... LIII	
Indirect trade	136, 139,
142, 196, 205, 426, 431, 561, 702, 916, 918, 1180, 1279, 1533,	
1534, 1564, 1582, 1610, 1618, 1619, 1635, 1639, 1786, 1813	
Abolition of the free list..... LIV, 1778, 1780	
British retaliation	1815, 1819
British treaty does not cover.....	1819
Change of flag	1689
Effect on foreign shipping.....	1521, 1522
Effect on France and possessions.....	1782
Effect on Germany and possessions.....	1782
Effect on Great Britain and possessions.....	1778, 1779
Foreign retaliation	1776, 1812

Discriminating duties—Continued.	Page.
Great Britain, imports from the United States affected by	1815, 1816
Great Britain the principal nation affected	1815
Nondutiable goods	1814
Possible benefits	1814
On imported fruit	1564
Or subsidy	1719
Outgoing cargoes	1535
Policy of the colony of Virginia	1675
Prosperity of American shipping under policy of	LIII, LIV
Reserve fund	1564
Retaliation	89, 105, 108, 117, 189, 231, 296, 354,
582, 645, 652, 1143, 1177, 1197, 1558, 1596, 1642, 1663, 1804, 1812, 1815	
Against American exports	1761
For foreign discrimination against American agricultural ex- ports	XXXVIII
Not confined to shipping	1759
The original purpose of American discrimination	1758
Views of John Quincy Adams	1759
Views of Henry Clay	1758
Views of Albert Gallatin	1758
Views of Thomas Jefferson	1758
Resolution of the House Committee on Commerce, March 15, 1822	1759
With postal subvention	1623, 1624
With subsidy	1804, 1806
<i>Dix</i> , U. S. Army transport, operation of	967, 1073, 1076
Dockage rates, British Columbia and America compared	1456
Dollar, Capt. Robert:	
Statement of	1285
American cargo ships	1290
Coastwise trade, wages	1291
Crews, American and foreign—	
Efficiency	1289
Wages compared	1286
Officers, American, the advance agents of home interests	1287, 1290
Pacific coast trade, sailing vessels	1285
Ships, American—	
Men required in engine room	1285
Operating cost	1285, 1286
Ships of foreign register owned by Americans	1287
Steam schooners for lumber trade	1288
Tramp freighters, cost of construction	1285
Wages on American coasting steamers (table)	1288
Donovan, John J.:	
Statement of	1058
Bellingham, Wash.—	
Chamber of commerce	1059
Shipping statistics	1060
Naval auxiliary	1062
Postal subvention	1062
Subsidy, direct aid	1062
Transport service	1062
Downey, Wallace:	
Statement of	182
Discriminating duties	189
Free ships	186
Foreign commerce of the United States, cost of transportation	186
Naval auxiliary	184
Ship construction, comparative cost in America and Great Britain	183
Ships—	
Average lifetime of	185
Operating cost, American and Great Britain compared	184
Subsidy—	
Commercial effect	184, 187
Construction bounty	189
Export bounty	189
Downes, James, statement of	158

E.

	Page.
East India Company chartered-----	1673
Eaton, C. S.:	
Statement of-----	1098
Lumber trade, Pacific coast-----	1098
Wages of sailors-----	1099
Edmunds, Henry R.:	
Statement of-----	346
Advance wages to seamen-----	348
Boarding-house masters-----	348
Coastwise trade—	
Class of seamen employed-----	347
Negro seamen in-----	347
Irrigation of western lands-----	347
Officers, nationality of-----	347
Seamen, schoolships for training-----	347
Ship construction, cost of-----	346
Shipping commissioner, authority of-----	349
Ships in foreign commerce, operating cost of-----	346
Subsidy, commercial effect of-----	346
Wages, advance to seamen-----	348
Elder-Dempster Steamship Line subsidy-----	160, 421
Elkins, Hon. Stephen B., discriminating duties-----	353
Ellis, C. H.:	
Statement of-----	1536
Food on shipboard-----	1538
Free ships, limited period-----	1536, 1538
Panama Canal—	
Supplies, transportation of-----	1539-1542
Competition for trade-----	1540
Seamen, American and foreign wages compared-----	1538
Ship construction, American superiority-----	1537
United Fruit Company—	
Officers' pay-----	1538
Transportation of Panama Canal supplies-----	1539
Vessels under foreign flags, operating cost-----	1536, 1539, 1541
Emery, Daniel S.:	
Statement of-----	526
American ship discipline-----	526
Coastwise trade—	
Exclusively American-----	526
Sailing vessels engaged in-----	526
Food on shipboard-----	527
Free ships, effect on American commerce-----	523
Officers—	
American and German pay compared-----	527
Required to be licensed-----	528
Seamen, violation of contracts-----	529
Wages of crews in coastwise trade-----	527
Empress Steamship Line subsidy-----	180, 457, 526
Entwistle, Capt. J. C.:	
Statement-----	587
Food on shipboard, cost of-----	588
Government aid to shipping-----	588
Shipmasters—	
Nationality of-----	587
Retirement for lack of ships-----	587
Erie Canal, improvement of-----	733
Evans, Isaac:	
Statement-----	1104
Boarding-house masters-----	1105
Seamen, shipping of-----	1105
Export bounty-----	171, 172, 175, 177, 182, 189, 469, 515, 1019, 1294
Export trade:	
Breakage in freight transportation-----	893, 907, 908, 921, 922
Establishment of regular steamship lines-----	908

	Page.
Export trade—Continued.	
Five-year periods, 1791 to 1806.....	241
Foreign and American methods of handling freight.....	852, 853, 855
Foreign shipping connections needed.....	843
Freight rates.....	237, 1020
On lumber, Pacific coast.....	1030, 1036
Statistical tables.....	232, 233, 234
Freight measurements, foreign and American.....	853
Grain—	
Pacific coast.....	1033, 1035
Puget Sound.....	1050
Lumber—	
Pacific coast.....	1026, 1032, 1036, 1283
Puget Sound.....	1051, 1053, 1065
Puget Sound.....	1049, 1065
San Francisco.....	1301
Shipping facilities.....	842, 854, 867, 924
South America.....	143
Statistics prior to 1821, inaccuracy.....	1763
Transshipment in foreign ports.....	892, 922
Transportation of machinery.....	906
West Indies and Central America, value of.....	143
Wheat, from Tacoma, Wash.....	1050, 1052

F.

Farquhar, Hon. John M.:	
Statement of.....	224
American shipping—	
Capital for investment in.....	229
Rehabilitation, a commercial question.....	227
Status of, extract from New York Commercial, May, 1904.....	224
Tonnage bill of the Fifty-first Congress.....	226
Discriminating duties, foreign retaliation.....	231
Export rates, discriminating.....	237
Export and domestic freight rates, statistical tables.....	232, 233, 234
Germany, preferential rates for State railways.....	231, 236
Great Britain, freight rates, railway.....	237
Lighterage.....	235
Philippine trade statistics.....	225
Railroads and ships.....	229, 237
Through bills of lading.....	230, 234, 236
Ferguson, R. H.:	
Statement of.....	704
American shipping, Government aid for.....	704
Tonnage bounty.....	704
Fernandina, Fla., exports of.....	704
Firemen:	
Freight ships, number employed.....	377
How shipped.....	379
Tons of coal handled per man daily.....	378
Wages.....	379, 483
Firth, Frank J.:	
Statement of.....	314
Commercial treaties.....	322, 323
Competitive tenders.....	323
Discriminating duties.....	315, 321, 323
Great Britain shipbuilding industry, extract from the London Engineer.....	317
Lake shipping.....	314, 319
Naval auxiliary.....	319, 321, 323
Shipyards, American.....	320, 321, 323
Subsidy, cargo tonnage.....	316, 322, 323
Fisheries:	
Pacific coast.....	992, 995, 1008
Recruiting ground for seamen.....	XXI, XXIV, XLVI, 994

Fishing vessels:	Page.
Compensation of crews.....	1577
Treatment of crews.....	610
Type of.....	1576
Fishermen:	
Canada, bounty for.....	1011
France, naval service of.....	1731
Japan, naval service of.....	1741
Fitzgerald, J. J.:	
Statement of.....	720
Free ships, American mechanics opposed to.....	721
Shipyards, American, stagnation in.....	721
Fitzsimmons, Thomas G.:	
Statement of.....	874
American goods in Canada, cost of.....	874
Capital and labor.....	874
Free trade.....	875
Flour export, Pacific coast trade.....	1119
Flynn, James E.:	
Statements of.....	1563, 1569
Discriminating duties—	
Indirect trade.....	1564
Reserve fund.....	1564
Duty on imported fruit.....	1564
Food on shipboard.....	1565
Fruit trade, class of vessels in.....	1565
Seamen—	
Violation of contracts.....	1567
Desertion.....	1569
Naturalization.....	1565
Savings, protection of.....	1566
Ships—	
Accommodation for seamen.....	1565
American register, port of New Orleans.....	1563, 1566
Wages—	
Advance, coastwise trade.....	1566
Compared.....	1564
Foard, Joseph R.:	
Statements of.....	500, 510
Crews, nationality.....	501
Construction bounty.....	503
Differential duties.....	502
Free ships, foreign trade.....	501, 503
Navigation laws, revision regarding nationality of seamen.....	503
Postal subvention for fast mail steamships.....	502
Ship owning, profits of.....	500
Subsidy, commercial effect of.....	502
Wages of crews compared (table).....	504
Foley, Felix:	
Statement of.....	504
Boarding-house masters.....	505
Plimsoll load line.....	507
Seamen—	
Abduction of.....	506
Advance wages of.....	505
Contracts of.....	505
Ship accommodations for.....	506
Water supply for.....	506
Shipping of crews.....	505
Undermanning.....	507
Food on shipboard.....	153, 204, 208, 221, 326
369, 377, 395, 497, 499, 527, 588, 605, 970, 972, 1453, 1498, 1538, 1565	
American and foreign compared.....	1176, 1501, 1640
Atlantic Carriers' Association (table).....	639
Cost per man.....	1087, 1134, 1345

	Page.
Food on shipboard—Continued.	
Forecastle bill of fare adopted by the Boston and Philadelphia Steamship Company in 1903.....	628
German ships.....	51
Navy of the United States.....	634, 639, 641
Pacific Mail Steamship Company, cost.....	1345, 1409
Pacific Ocean trade.....	301
Scandinavian ships.....	51
Swedish steamships in lake trade.....	823
Ford, J. C.:	
Statement of.....	1041
Canada-Mexico steamship subsidy.....	1041
Forecastle accommodations for seamen (<i>see also</i> Quarters for seamen)....	58,
64, 207, 209, 221, 373, 497, 506, 600, 634, 639, 641,	
970, 1082, 1276, 1516, 1565, 1568, 1570, 1708	1659
American and foreign, compared.....	1599
Gulf Transit Company.....	1593
Schooners.....	1705
Unsanitary.....	
Foreign-built vessels flying the American flag:	
Barges.....	410
Barkentines.....	410
Barks.....	409
Brigs.....	410
Schooners.....	410
Ships.....	409
Steamers.....	407
Foreign carrying trade of the United States:	
American shipping in.....	326, 960
Balance of trade.....	1682
Competition in trade.....	1501, 1751
Cost of transportation (<i>see also</i> Freight rates).....	v, 171,
136, 330, 389, 422, 651, 1148, 1686	1165, 1873
Effect of war on.....	265, 695
Export of merchandise by ships of principal flags in 1902.....	842
Forwarding agents.....	897, 901
Freight-handling facilities.....	928
Freight rates of flour.....	265, 696
Imports of merchandise by ships of principal flags in 1902.....	192
Manipulation by foreign commercial agents.....	iv, 174
New markets, need of.....	1134
Portland, Oreg.....	582,
Regular line steamships, Government aid for.....	685, 893, 964, 1017, 1019, 1048, 1131, 1328, 1734
Proposed route schedules.....	1020
Sailing vessels.....	1026, 1032
Southern States.....	1613
Statistics.....	1606
Trade facilities, lack of.....	879
Foreign carrying trade of the world:	
Cost of transportation (<i>see also</i> Freight rates).....	171
Tonnage increase per annum.....	196, 202
United States not a carrying power.....	905
Foreign merchant marine:	
As naval auxiliaries.....	1734
Development with bounty system.....	1622
West Indies trade.....	141
Foreign ship agencies, port of Norfolk.....	1721
Foreign steamship lines, railway cooperation with.....	236, 292, 1127
Foreign subsidized steamship lines, extract from report of F. H. Morse,	
United States consul, Great Britain.....	452
Foreign wars, effect on ocean freight rates.....	717
Foreign war ships built in Great Britain.....	459
Foreign wrecked vessels repaired for American register.....	428, 1294, 1446-1450
Foster, Hon. Addison G.:	
Address of welcome.....	1047
American shipping, protective policy applied to.....	1048

Foster, Hon. Addison G.—Continued.	Page.
Great Britain, Canadian Pacific subsidy	1048
Japan, subsidy	1048
Naval auxiliary	1049
Puget Sound, exports	1049
Regular steamship lines, establishment of	1048
France:	
Coal imports of	329, 332
Convention of navigation and commerce, 1822-23, abstract of articles	254
Discriminating-duty policy, American retaliation	1783
Fisherman, naval service of	1731
Food on shipboard	1501
Free-ship policy	658, 1126
Merchandise exported to the United States	333
Shipping and shipbuilding	1450
Ship-subsidy laws	1322
Subsidized steamship lines to Brazil	442
Subsidy	24, 83, 116, 141, 658, 659, 1053, 1123, 1126, 1495
Acts of 1893 and 1902	270
Construction bounty	105, 943
Policy	1173
Postal subvention	944
Tonnage taxes	1796, 1797
Frazier, William H.:	
Statement of	588
American seamen in competition with Chinese labor	620
Barges—	
Crews, character of	622
Towage	620
Barges and sailing vessels, inspection of	621
Consuls in foreign ports, complaints against	622
Crimping	605, 609
Food on shipboard	605
International Seamen's Union of America, number of members	589
Naval reserve, class of men required	598
Plimsoll load line	626
Sailors' union relations with nonunion men	623
Seamen—	
American—(H. R. 13771), introduced by Mr. Livernash, of California, to amend laws relating to American seamen	589
Chinese—bill (H. R. 12230) introduced by Mr. Livernash, of California, to prohibit the employment of Chinese on American vessels	616
Chinese:	
Employment of	616
On foreign subsidized lines in the Pacific trade	619
Contracts, violation of	604
Cruelty, liability for	605
Deserters, abolition of consular authority to claim	604
Desertion, abolition of imprisonment for	601
Discharge in foreign ports	602
Quarters on shipboard	600
Scarcity of American-born	589
Shipping of	602
Treatment of	603
Wages—	
Advance	608
Chinese and Caucasian, compared	618
Compensation for delay in paying off	599
Working hours at sea and in port	598
Shipping commissioner—	
Extension of powers of	623
Jurisdiction of	626
Surgeon-General of the Public Health and Marine-Hospital Service, extracts from report of	600
Undermanning of ships	611
Whaling vessels, treatment of seamen	610

Freeman, R. R.:	Page.
Statement of	561
Boarding-house masters, control of the shipping of crews	563
Coastwise trade, discharge of crews	562
Crews—	
Desertion	562
Violation of contracts	562
Wages in coastwise trade controlled by unions	563
Wages—	
In different ports	564
Of crews	561
Ships' officers	561
Free ships:	
American mechanics opposed to	721
Amendment to navigation laws concerning	390
Atlantic to Pacific coastwise trade	1140
British policy	661, 662
Coastwise trade	1124, 1625
Commercial effect	117, 186, 289, 300, 305, 1684
Competition with foreign subsidized vessels	1196
Cost of	1587
Effect on American shipyards	243, 426, 528, 838, 1416, 1514, 1621, 1636, 1752
Foreign trade exclusively	32,
95, 97, 104, 198, 201, 206, 335, 340, 342, 344, 383, 387, 390, 392,	
461, 501, 657, 661, 1153, 1183, 1185, 1192, 1447, 1462, 1788	
Foreign crews	393, 489, 1493
French policy	658
German policy	1123, 1127, 1442, 1444
Inferior to American-built vessels	1518
Labor opposition to	1455
Letters concerning	LXX
Limited period	197, 201, 1093, 1536, 1538, 1546, 1548, 1586, 1588
Norway	1123, 1127
Operating cost	152, 175, 662, 895, 1157, 1463, 1577, 1635, 1636, 1752
Repairs	1161, 1416
Unlimited trade	389, 489, 1305
With discriminating duties	435, 487, 490
With operating bounty	25
With tonnage dues	1137, 1142
With subsidy	340, 387, 575
Without subsidy	571, 575, 645
Free shipping bureau, legislation suggested	278, 282
Free trade	875, 1496, 1615, 1617, 1620
Views of John Quincy Adams	1761
Freight handling:	
Absence of terminal facilities	854
American and foreign methods	852, 853, 855, 857
Automatic machinery	852, 856, 858
Bulk and general cargoes	856, 857
Charges	853, 857
Increased facilities for foreign trade	897
Lake and ocean, cost of	714
Freight measurements, American and foreign	853
Freight rates:	
Chartered ships	1638
Comparison, tramps and regular-line steamships	514
Cotton, to Europe	203
Cuban trade	775
Export trade	1020
Export and domestic (statistical tables)	232, 233, 234
Foreign trade	715, 725
Germany, railroad preferential	231, 236, 1044
Grain export—	
Boston to Liverpool	202
Effect of foreign competition	1712
Railroad discrimination	1714

Freight rates—Continued.	Page.
Great Britain, railroad freight rates	237
Gulf of Mexico	1561
Increased by withdrawal of foreign ships for war purposes	819,
	1148, 1159, 1165
Iron ore	781, 859
Lake shipping	169, 314, 432, 642, 708, 711, 737, 800, 889, 1031
Lumber—	
Lake shipping	1031
Pacific coast	1030, 1036
Ocean trade—	
Affected by foreign ship combinations	1556
Decrease in	196, 202
Pacific coast	202, 1120
Puget Sound to Philippine Islands	967, 999
Railroad, Sherman Act regulating	1183
Railway and ship, through bill of lading	164, 203, 230, 234, 236
Wheat (statistical table)	204
Freight ships (<i>see also</i> Cargo vessels) :	
Chesapeake and Ohio Railroad	1638
Coastwise trade, foreign-built tramps	428
Construction cost compared	36, 38, 41, 75, 93, 425, 641, 1544
Discriminating duty or subsidy	1719
Fruit trade	310, 403
Great Lakes—	
Capacity of	707, 735, 738, 900
Operating cost	707
Lower rates with larger vessels	896, 1882
Mileage bounty	574
Ocean and lake loading cost	714
Profits in	1588
Size of	707, 738, 825, 900
Speed conditions	580, 581
Subsidy, indirect	1487
Time consumed in unloading	714, 789, 900
Tonnage of	714
Type for American market	17, 42
Fruit trade:	
Admiral ships	403
Class of vessels	1565
Import duty	1550
Norwegian ships	1587
Furuseth, Andrew :	
Statements of	1212, 1300, 1480
Forecasts	1276
Rio, wreck of	1214
Sailors' Union of the Pacific, data submitted by—	
Appendix to House bill 13771, submitted by Hon. E. J. Livernash, of California	1222-1252
Proposed legislation for seamen (H. R. 13771), reprinted in Coast Seamen's Journal, June 8, 1904	1222
Members, where employed	1212
Rio, steamship, limitation of liability, decision of United States circuit court of appeals, San Francisco, Cal., May 9, 1904	1214-1221
"Rio decision," editorial in Coast Seamen's Journal, San Francisco, Cal., May 18, 1904	1221
"Seamen and slaughtermen," editorial in Coast Seamen's Journal, San Francisco, Cal., August 3, 1904	1272
"The case of the seamen," editorial in the Coast Seamen's Journal, San Francisco, Cal., June 8, 1904	1252
The seamen's bill (H. R. 13771), introduced by Representative Livernash, of California	1254
"The soul of the ship," editorial in the Coast Seamen's Journal, San Francisco, Cal., August 3, 1904	1262
Seamen—	
Desertion	1480
Discharges	1300

Furuseth, Andrew—Continued.	Page.
Seamen—Continued.	
Efficiency standard	1214
Hours of labor, watch and watch	1213
Married, percentage of	1276
Wages (tables)	1273, 1274

G.

Gallinger, Hon. Jacob H., chairman, Merchant Marine Commission:	
Remarks of	298, 463, 674, 753, 1046, 1180, 1481, 1725, 1826
Response to addresses of welcome	4,
	465, 511, 676, 730, 792, 833, 934, 1110, 1181
American shipping—	
Decadence of	5
Remedial legislation	5
Merchant Marine Commission—	
Act of Congress creating	4
Duties of	4
Expenses of	5
Personnel	4
Report of, submitted	I
Vacancies	5
Galveston, Tex.:	
American ships in ocean trade	1490
Hearing at	148, 1508
Ocean steamship lines to and from (tables)	1503-1507
Steamship line to Central America	1508
Garlick, Capt. Thomas W.:	
Statement of	1086
Chinese seamen, efficiency of	1088
Crews, Asiatic	1087
Food on shipboard, cost per man	1087
Trans-Pacific trade—	
Crews, nationality	1086
Officers, nationality	1086
Wages	1086
Geographical centers of activity	1527
German, France J.:	
Statement of	1708
Load line for American vessels	1710
Forecastle accommodations	1708
Seamen—	
American-born, no incentive	1708
Wages—	
Advance	1710
American and foreign compared	1708
Ships, undermanning	1709
Germany:	
Emperor of, merchant marine, policy	460
Food rations of seamen	51
Free-ship policy	1123, 1127, 1442, 1444
Freight rates, railway preferential	231, 236, 1044
Merchant-marine expansion	363, 1154, 1589
School ships	1324
Ship canals	756
Ship construction	11, 455, 1442, 1443, 1446
Competition with Great Britain	460
Ship-operating expenses, comparative (table)	163, 164
Subsidized shipping	1622
Subsidized steamship lines to Brazil	441
Subsidy	24, 293, 665, 942, 1127, 1444, 1681, 1687
Tonnage taxes	1793
Globe Navigation Company:	
Panama Canal trade—	
Coastwise laws applied to	1822
Letter to Hon. W. E. Humphrey	1822

	Page.
Globe Navigation Company—Continued.	
Panama Canal trade—Continued.	
Reservation to American shipping	1822
Unemployed American shipping	1822, 1823, 1824
Vessels of	1036
Goldbaum, Joseph:	
Statement of	927
Pere Marquette Steamship Company, car ferries of	927
Golden, John:	
Statement of	1657
American shipping, competition with foreign tramp vessels	1657
Crimping	1658
Seamen—	
Abduction of	1658
Advance wages	1658
American, scarcity of	1657
Ships' accommodation, American and foreign compared	1659
Virginia Mariners' Friends Society	1658
Goldsborough, Richard H.:	
Statement of	1826
Turbine engines	1826
Advantages as marine propellers	1838
Allan Line S. S. <i>Victorian</i>	1830
American Turbine Company	1833, 1835
Coal consumption	1836, 1839
Compactness	1835
Cruisers	1837, 1841
Curtis engine	1831, 1834
De Laval engine	1829, 1833
For marine propulsion	1837, 1840
Goldsborough engine	1835
Kinetic	1827
Kinetic and reactionary compared	1831
Multiple-impact	1828
Parsons' engine	1830, 1831, 1833, 1840
Reversing problems	1837, 1841
Space occupied	1835
Speed of	1831, 1837
Vibration	1836, 1838
Wage rolls compared	1841
Goodyear, C. P.:	
Statements of	1604, 1621
American shipping—	
Interest of the South in rehabilitation	1607
Protection for	1608
Rehabilitation	1605
Brunswick, Ga., ships in foreign trade from (table)	1609
Deep-water ports of the United States	1606
Foreign merchant shipping, development with bounty system	1622
Foreign subsidies, total average amount	1606
Foreign trade statistics	1606
Germany, subsidized shipping	1622
Great Britain, Cunard Line subsidies	1606, 1607, 1622
Reciprocity treaties, increase of commerce under	1608
Ship construction, labor cost	1621
Subsidy policy, protection of American labor	1621
Gorman, James C.:	
Statement of	480
American seamen, scarcity of	484
Atlantic Transport Line, crews, where shipped	482
Cost of shipbuilding materials	481
Michigan and Maine, cost of (table)	481
Nationality of ship officers	483
Ship construction, America-Great Britain compared	480
Wages—	
Controlled by supply and demand	484
Crews, comparative statement (table)	482
Firemen	483

Goulder, Harvey D.:	Page.
Statements of	796, 859
American shipping—	
Government aid	801
Rehabilitation of	797
Invitation to business men of Cleveland, Ohio, to appear before Merchant Marine Commission	860
Lake shipping—	
Cost of operating	799
Freight transportation, cost of	800
Protection to	801
Ship construction, cost of	798
Shipyards, specialization in	798
Government aid to American shipping:	
Countervailing duties to sailing vessels	1044
Discriminating duties—	
Act of 1815, modifying	1678
American colonial policy	1675
And cotton trade	912
And tonnage bounty	1722
And tonnage tax	1677
Commercial effect	143,
149, 150, 196, 205, 295, 302, 305, 315, 321, 383, 469, 574	
Commercial treaties, abrogation of	LIII, 245, 557, 757, 1486, 1814
Constitutionality of	572, 769
Direct trade	37, 38, 84, 86, 196, 205, 788, 898, 1142, 1170, 1188
For limited period	1702
Effect on American shipping	87
Effect on coastwise trade	149
Effect on Pacific coast trade	1201
Effect on trade with Cuba	1786
Elkins, Hon. Stephen B., speech of	353
French policy, American retaliation for	1783
Historic American policy	LIII
Indirect trade	136,
139, 142, 196, 205, 426, 431, 561, 702, 916, 918, 1180, 1279, 1533,	
1534, 1564, 1582, 1610, 1618, 1619, 1635, 1639, 1786, 1813	
Abolition of the free list	LIV, 1778, 1780
British retaliation	1815, 1819
British treaty does not cover	1819
Change of flag	1689
Effect on foreign shipping	1521, 1522
Effect on France and possessions	1782
Effect on Germany and possessions	1782
Effect on Great Britain and possessions	1778, 1779
Foreign retaliation	1776, 1812
Great Britain, imports from United States affected by	1815, 1816
Great Britain the principal nation affected	1815
Nondutiable goods	1814
Possible benefits	1814
On imported fruit	1564
Or subsidy	1719
Outgoing cargoes	1535
Policy of the colony of Virginia	1675
Prosperity of American shipping under policy of	LIII, LIV
Reserve fund	1564
Resolution of the House Committee on Commerce, Mar. 15, 1822	1759
Retaliation	89, 105, 108, 117, 189, 231, 296, 354,
582, 645, 652, 1143, 1177, 1197, 1558, 1596, 1642, 1663, 1804, 1812	
Against American exports	1761
For foreign discrimination against American agricultural exports	XXXVIII
Not confined to shipping	1759
The original purpose of American discrimination	1758
Views of John Quincy Adams	1759
Views of Henry Clay	1758

Government aid to American shipping—Continued.	Page.
Discriminating duties—Continued.	
Retaliation—Continued.	
Views of Albert Gallatin.....	1758
Views of Thomas Jefferson.....	1758
With postal subvention.....	1623, 1624
With subsidy.....	1804, 1806
Legislation recommended, estimated cost.....	xxxv, xxxvi
Message of President Roosevelt, December 7, 1903.....	i
Message of President Washington, Dec. 8, 1790.....	1677
Necessity for.....	744, 755, 790, 801, 805, 812, 834, 850, 862, 873, 1012, 1037, 1039, 1090, 1152, 1718, 1820
Postal subvention.....	23, 38, 85, 90, 105, 107, 119, 132, 136, 144, 146, 174, 295, 304, 307, 334, 340, 390, 426, 430, 491, 493, 502, 513, 521, 524, 571, 663, 666, 682, 767, 871, 890, 891, 951, 953, 991, 1019, 1043, 1062, 1071, 1093 1125, 1132, 1141, 1150, 1162, 1169, 1189, 1205, 1279, 1293, 1680
Allan Steamship Line.....	384
Competitive bids.....	146, 343
First American.....	1680
Historic legislation concerning.....	xxx, xxxi
Oceanic Steamship Company.....	1203
Proposed new routes, comparison of rates.....	xxviii
Regular steamship lines.....	578, 582, 685, 702, 810, 893, 964, 1017, 1048, 1131, 1162, 1174, 1177, 1328, 1457, 1521, 1685, 1809
Ward Line.....	121
Mail contracts.....	134
Remedial legislation.....	xviii, liii, lvi
Subsidy—	
A matter of national defense.....	1805
American steamship lines to Brazil.....	443
Based on difference in wages.....	1722, 1726, 1729, 1731
Collins Steamship Line.....	289, 304, 553, 556, 629, 1303, 1699
Commercial effect of.....	118, 167, 184, 203, 291, 316, 322, 346, 351, 422, 432, 488, 502, 584, 726, 833, 869, 1013, 1166, 1304, 1308, 1590
Competitive tenders.....	146, 323, 343, 468, 471, 476
Constitutionality of.....	26, 105, 336, 553, 763, 766, 1204
Construction bounty.....	19, 99, 189, 292, 304, 311, 476, 503, 522, 890, 1056, 1098, 1467, 1469
Definition of.....	734, 787, 795, 898
Direct aid.....	29, 37, 38, 105, 166, 170, 172, 295, 297, 303, 305, 336, 346, 403, 418, 513, 516, 557, 571, 573, 577, 579, 588, 630, 654, 668, 674, 787, 802, 865, 868, 880, 890, 912, 914, 998, 1012, 1062, 1549, 1561, 1580, 1662, 1753, 1754
American shipyards.....	1629
For special pioneer steamship lines.....	1521
Or discriminating duties.....	1629
To both steam and sailing vessels.....	1315
To equalize operating cost.....	19, 471, 1665, 1668
Effect on grain-carrying trade.....	903
Export bounty.....	172, 189, 515, 1019
Fast mail steamships for naval auxiliary.....	136, 144, 470, 579, 580, 1328, 1685, 1809
First American postal subvention.....	1680
Free ships.....	386, 387
Freight ships on other than regular mail routes.....	1329, 1332, 1487
Impermanence of legislation concerning.....	1557
International conference on.....	904
Lake shipping.....	734
Limited period.....	895
Mileage bounty.....	306, 571, 672
Military premiums on ships fulfilling naval requirements.....	1756
Naval auxiliaries.....	136, 144, 467, 470, 575, 579, 580, 931, 938, 950, 952, 1125, 1328, 1685, 1756, 1809
Naval reserve.....	1134, 1138, 1190
Organized labor, position of.....	835
Operating bounty.....	19

Government aid to American shipping—Continued.	Page
Subsidy—Continued.	
Protection of American labor.....	1621
Report of Lynch Committee, 1870.....	452
Retaliation.....	337
Ships in South American trade.....	719
Speed bounty.....	107, 123, 426, 515, 672, 1670
Tonnage bounty.....	303, 307, 316, 322, 326, 346, 350, 351, 400, 420, 573, 580, 704, 1043, 1090, 1097, 1189, 1283, 1316, 1479, 1722
Tonnage rebate.....	890
Uncertainty of legislation concerning.....	1557
Wage bounty to American seamen.....	1098
With discriminating duties.....	1568
Withdrawal of.....	1199
Would centralize trade.....	1492
Views of eminent statesmen:	
Jefferson, Thomas.....	239
Madison, James.....	240
Randolph, Edmund.....	240
Washington, George.....	239
Urgent need for.....	XLV, LIII
Government statutes referring to transport of persons and merchandise between American ports.....	956
Grain export:	
American and foreign.....	337
Canada.....	337
Chesapeake and Ohio Railway Company.....	1711
European short supply.....	1712
Freight rates, effect of foreign competition.....	1712
Pacific coast.....	1033, 1035
Puget Sound.....	1050
United States.....	1712
Grain trade:	
Of Baltimore.....	475
Of the Northwest.....	849
Grant, Capt. E. B.:	
Statement of.....	647
Seamen—	
Abduction of.....	650
Boarding-house masters.....	648
Contracts, violation of.....	647, 649
Crimping.....	648
Desertion.....	647
Relation with ship owners and masters.....	647
Savings deposited with shipping commissioner.....	650
Shipping of.....	649
Wages, advance.....	648
Shipping commissioner, extension of powers.....	650
Grasselli, C. A.:	
Statement of.....	806
Cunard Line mail subsidy.....	808
Foreign commerce of the world carried in American ships.....	806
Foreign steamship subsidies.....	807
South America, facilities for American trade.....	806
Gray, George D.:	
Statement of.....	1277
American shipping—	
California, charges on.....	1279
National interest in rehabilitation.....	1277
Discriminating duties, indirect trade.....	1279
Foreign trade inaction, effect on coastwise trade.....	1278
Postal subvention, fast steamship lines.....	1279
Tonnage dues, for all ships, sail or steam.....	1280, 1282
Gray, L. H.:	
Statement of.....	996
American shipping, direct aid for.....	996
Sailing vessels, licensed officers.....	996

Grays Harbor, Washington, shipyards of	1078
Great Britain:	
Admiralty subvention	LX, 145, 942, 1675
American subsidized shipping, effect on commerce of	385
Board of trade supervision of shipping	242, 638
Capital, investments in ships	11
Coal export	228
Coal, cost per ton	328, 332
Competition, Collins Line	289
"Convention," for direct trade, 1815 (abstract of articles)	252
Cromwell's navigation act	1674
Cunard Line—	
Construction contract of 1902	xv, XLV, 941, 1128, 1622, 1864, 1868, 1878
Organization of	453
Postal subvention	340, 453, 808, 941, 1807
Special subsidy of 1902	456, 458, 1807
Subsidy	LXVI, 144, 429, 456, 458, 629, 663, 808, 938, 1146, 1150, 1309, 1606, 1607, 1681
Development of carrying trade to injury of her commerce	1746, 1747, 1748
Discharge of seamen in foreign ports, law concerning	398
East India Company chartered	1673
Experiments in use of turbine engines	1843, 1845
First discriminating policy	1673
Free ship policy	661, 662
Freight rates	165, 237
Imports from United States affected by discriminating duties (table)	1815, 1816
Light-dues act	1789
Provision concerning Royal Naval Reserves	1803, 1804
Provision favoring sailing vessels	1792
Scale of payments	1790
Loans on marine property	433
Merchant marine—	
Development	242, 454
Historical review	1672
Employment of foreign seamen	1727
Net earnings	242, 850
In war	1672
Tonnage of	241
Merchant ships—	
Cost of operating	37, 184
Under Norwegian register	895, 905
Navigation laws of	1745
Naval reserve system	1655, 1727
Possibilities of colonial production	1816
Ship-building industry (extract from London Engineer)	317
Ship construction—	
Class of labor employed	101
Contract for Chesapeake and Ohio Railroad	1635, 1637
Cost of	28, 36, 183, 1643, 1644
Cost of materials	40
Statistics	1442
Volume of	424
Shipyards	1415, 1466
Shipyards specialties	424
Subsidized steamship lines	453, 458
To Brazil	439
Pacific Ocean trade	1066
Vancouver to Mexico	986, 1013
Subsidies	180, 663, 666, 850, 872, 941, 1044, 1679, 1680, 1687
Admiralty payments	LX, 942, 1675
Canadian Pacific	938, 1048
Contracts	930
Cunard Line	xv, XLV, 144, 340, 429, 453, 456, 458, 663, 808, 938, 941, 1146, 1150, 1309, 1606, 1607, 1622, 1681, 1807

	Page.
Great Britain—Continued.	
Subsidies—Continued.	
Elder-Dempster Company	160, 421
Empress Steamship Line	180, 457, 520
For services rendered	941, 1304, 1308
Marine-engine construction	458, 459
Naval subvention	453
Peninsular and Oriental Navigation Co.	1868, 1880
Policy of	xv
Postal subvention	144, 384, 453, 1035
The greatest subsidizer	456
Trade competition with Germany	460
Tramp tonnage	1467
Transport service	949, 965
Wages of sailors	66, 215
Great Lakes (<i>see also</i> Lake shipping) :	
Commerce of	736
River and harbor improvements	897
Ship canals, tonnage record	889
Waterways to Atlantic Ocean	733, 761, 762, 827, 828, 894, 903
Greenleaf, E. M. :	
Statement of	987
Steamboat-Inspection Service	987
Gresham, Hon. Walter :	
Statement of	1484
American shipping coastwise trade, protected ..	1485
Discriminating duties, conflict with commercial treaties ..	1486
Ship construction, free materials	1485
Subsidy, indirect, for freight ships	1487
Griffith, James :	
Statement of	986
British subsidized line, Vancouver to Mexico	986
Capital for investment in American shipping	986
Grosvenor, Hon. Charles H. :	
Remarks of	733, 786, 795, 812
River and harbor improvement	734, 796
Subsidy—	
Definition of	734, 795
Lake shipping	734
Gulf Transit Company :	
American and foreign ships of	1597, 1599
Chinese crews	1598
Forecastle accommodations for seamen	1599
Wage comparisons	1598, 1600
Gustafsson, G. :	
Statement of	983
Sailing vessels, licensed officers	984
H.	
Hall, George :	
Statement of	219
Seamen—	
Treatment on American vessels	219
Wages	213
Hamburg, Germany, tonnage taxes	1793, 1794
Hanbury, Harry A. :	
Statement of	285
Coastwise trade crews, shipping of	285
Seamen—	
Boarding houses, influence of	285
Savings, protection of	285
Shipping commissioners—	
Authority of	286
Duties of	285
Hanna bill, referred to	573
Harbor construction, cost of	108
Harlan & Hollingsworth Company, established 1836 ..	418

	Page.
Harlowe, David:	
Statements of	892, 908
Act of Congress relating to navigation of vessels, bills of lading, etc., and circular issued by the Bureau of Navigation	910
Breakage, foreign-trade transportation	893, 908
Export trade, transshipment in foreign ports	892
Postal subvention for foreign steamship lines to South American ports	893
Ship canals, Great Lakes to Atlantic Ocean	894
South America—	
Trade facilities	892
West coast trade	893
Harrington, Rear-Admiral P. F., U. S. N.:	
Statements of	1655, 1749
Absence of merchant marine a limitation of naval resources	1657
American shipping—	
Cause of decline	1749
Lack of continuous policy for	1750
Rehabilitation for national defense	1656, 1753
Tax exemption	1752
American shipyards, no construction for foreign trade	1750, 1751
Foreign trade, equalizing competition in	1751
Free ships—	
Effect on American shipyards	1752
Operating cost	1752
Merchant service and Navy, reciprocal relations	1655, 1656, 1749
Naval reserve—	
Great Britain	1655
Value of	1753
Navy training system	1754
Sailing vessels, passing of	1755
Ship mechanics, importance to naval reserve during war	1656
State naval militia	1754
Subsidy, direct aid	1753, 1754
Hartman, John P.:	
Statement of	953
Alaska—	
Shipping facilities	955
Trade with	954
Transportation of troops and Government supplies	955
American shipping, direct aid to	953
Naval auxiliary	954
Navigation laws, referring to transportation of persons and merchan- dise between American ports	956
Transport service	954
Haserot, Samuel F.:	
Statement of	863
American shipping	864
Panama Canal	864
Haupt, Prof. Lewis M.:	
Statement of	386
Free ships	387
Purchase of foreign ships for American registry	387
Subsidy, commercial effect of	386
Hawaiian Islands, extension of coastwise navigation laws to	146
Hawley, J. H., statement of	1500
Hawthorne, George:	
Statement of	1567
Ship accommodations for seamen	1568
Subsidy, with discriminating duty	1568,
Hemp, Manila export	572, 1069
Herrick, Hon. Myron T.:	
Statement of	802
Lake shipping as an investment	803
Subsidy	802

	Page.
Hewitt, Henry :	
Statement of	1106
Iron mines, Pacific coast development.....	1107
Heynemann, Lionel :	
Statement of	1472
Shipyards—	
American, competition with United States Government.....	1473
Government, labor cost.....	1473
Hibbs, Frank W. :	
Statement of	959
American shipping—	
Foreign trade.....	960
Investment of capital in.....	960
Naval auxiliary.....	964
Navy of the United States, growth of.....	961
Ship construction—	
Cost of.....	962
Trades involved	961
Shipyards, American, Government work in.....	961
Subsidy, regular steamship lines in foreign trade.....	964
Transport service, operating cost.....	965, 966
Hilken, Henry G. :	
Statement of.....	510
Seamen, school-ships for.....	510
Hill, James J. :	
Statement of.....	164
Export tonnage bounties.....	171, 172, 175, 177, 182
Foreign commerce of the United States—	
Cost of transporting.....	171
New markets for.....	174
Free ships.....	170, 175
Freight rates—	
Great Britain.....	165
Lake shipping.....	169
Great Britain, Empress Steamship Line subsidy	180
Irrigation of western lands	173
Japan, tonnage bounty.....	165, 180
Japanese merchant trade, effect of Russo-Jap war	166
Pacific Ocean commerce—	
Competition	166
Cost of labor.....	168
Postal subvention.....	174
Seamen—	
Asiatic	169, 175
Contracts	168
Nationality of.....	168, 175, 181
Wages	169, 175
Ship construction—	
Comparative cost	165, 168
Cost of labor.....	181
Ships, American, naval auxiliary value	182
Subsidy—	
Commercial effect.....	166, 167, 170
Great Britain.....	180
Japan	180
Holt, Hon. S. W. :	
Statement of.....	1630
Atlantic Transport Line, American and foreign register, wages compared	1631
Holton, John S. W. :	
Statement of	312
Crimps	313
Navigation laws, revision in regard to sailors' boarding houses.....	313
Seamen—	
Boarding houses.....	313
Protection of	313

Home Market Club :	Page.
Canvass of public opinion concerning methods for developing American shipping, statements of—	
Adams, T. M., free ships.....	538
Ainey, William A., Government aid.....	541
Allen, Franklin, discriminating duties.....	547
Ayres, Howard, discriminating duties.....	546
Balkwell, W. W., discriminating duties.....	542
Bancroft, E. D., postal subvention.....	543
Bancroft, Samuel, jr., free trade.....	545
Barker, John—	
Discriminating duties.....	540
Wage bounty to American seamen.....	540
Barrow, George, discriminating duties.....	548
Bassett, J. M., discriminating duty or subsidy.....	536
Bates, W. W., American ships.....	550
Beckman Company, the, free ships.....	536
Bemis, Albert F., free ships.....	537
Bingham, N. W.—	
Discriminating duties.....	544
Subsidy, direct aid.....	544
Blanchard, Charles A., class legislation.....	538
Bowen, C. H., subsidy, direct aid.....	537
Bradley, Dan F.—	
Subsidy, direct aid.....	546
Reciprocity treaties.....	546
Briggs, S., subsidy.....	535
Brown, Allan D., discriminating duties.....	546
Brown, William L., subsidy.....	538
Bumstead, Horace, free trade.....	532
Burr, Halsey C., no Government aid.....	535
Caldwell, A., discriminating duties.....	546
Campbell, E. B., free ships.....	540
Carnahan, J. E., discriminating duties.....	544
Carter, R. A., subsidy, direct aid.....	538
Caven, James, discriminating duties and subsidy.....	535
Chase, George C., subsidy.....	543
Chase, James F., discriminating duties.....	537
Church, A. B., discriminating duty.....	538
Clark, F. L., discriminating duties.....	546
Clough, W. Rockwell, discriminating duties.....	545
Cochran, L. E., constitutional means with a liberal subsidy.....	547
Cochrane, John, discriminating duties.....	549
Coffin, O. Vincent, discriminating duty or subsidy, or both.....	545
Cole, F. B., free ships.....	537
Collier, J. C., open competition without Government aid.....	532
Cone, C. M., discriminating duties.....	539
Contoocook Mill Company, subsidy.....	544
Deming, J. K., free ships.....	543
Dobson, Gordon, discriminating duty or subsidy.....	549
Doubleday, J. W., subsidy, direct aid.....	539
Draper, Eben S., discriminating duties or subsidy, or both.....	534, 541
Eliot, Charles W., free ships unrestricted.....	533
Fay, John S., discriminating duty.....	536
Fetterolf, A. H., discriminating duty.....	544
Fitzgerald, George H., protective policy applied to American shipping.....	535
Fletcher, John G., against Government aid.....	532
Fowler, C. W., tariff for revenue only.....	543
Frye, N. P., discriminating duties.....	538
Gammell, William, discriminating duties or subsidy.....	535
Gardiner, Silas W., discriminating duties.....	541
Gay, James H., discriminating duties and subsidy.....	541
Goodwin, George M.—	
No Government aid.....	536
Tariff for revenue only.....	536
Gray, George A., discriminating duty.....	538

Home Market Club—Continued.

Page.

Canvass of public opinion concerning methods for developing American shipping, statements of—Continued.

Green, Joseph W., jr., return to historic policy	537
Guild, Curtis, jr., subsidy, direct aid	534
Hanson, J. F., subsidy, direct aid	536
Harris, Theodore, Government aid or free ships	533, 540
Hews & Co., A. H., discriminating duty	541
Hill, Lew. C., discriminating duty or subsidy	539
Hines, John A., discriminating duties	538
Hines, J. D., free trade	537
Holton, Henry D., discriminating duties	541
Howland, Charles A., discriminating duties	547
Hubbard, E. K., discriminating duties	546
Humphrey, W. F., subsidy, direct aid	549
Hyde, John F., discriminating duties with subsidy	534
Kerr, David R., subsidy, direct aid	542
Kills, Lewis G., free trade and free ships	544
Kimball, E. B., subsidy	540
King, Henry C., rehabilitation of American shipping	543
Lamb, Isaac W., free trade	536
Leake, Frank, discriminating duties	537
Lessig, G. B., subsidy	545
Letchworth, O. L., discriminating duties	546
Libby, Augustus F., discriminating duties	545
Littlejohn, J. J., subsidy, direct aid	535
Lowrey, A. L., open competition without Government aid	533
Lyman, Arthur T., free trade	532, 536
McPherson, E. M., discriminating duties	539
Meserve, Charles F., discriminating duties	534
Metcalf, Henry B., honest legislation	541
Michenor, I. H., subsidy, direct aid	543
Miller, Frank, discriminating duties	545
Miller, J. H., open competition without Government aid	532
Molesworth, Sir Guilford, British and American shipping laws compared	559
Morris, E. W., discriminating duties and subsidy	534
Mountcastle, R. H., discriminating duties	534, 541
Murdoch, James S., free ships	532
Neff, Robert W., discriminating duties, sliding scale	534
Newton, Virginius, no Government aid	545
Nichols, William G., no Government aid	535
Norris, D. K., free ships	538
O'Brien, Miles M., Government aid	540
O'Neal, W. C., discriminating duties and postal subvention	535
Osborne, T. M., free trade in shipbuilding materials	532
Pew, John J., subsidy	544
Poncet, John, free ships	532
Porter, R. H., discriminating duties, and subsidy if necessary	542
Potter, Barrett, subsidy, direct aid	540
Pratt, H. L., subsidy, direct aid	551
Protectionist, editor of the, discriminating duties, direct trade	553
Rankin, James E., discriminating duties	540
Redfield, John R., free ships	549
Roberts, Ernest W., discriminating duties with subsidy	543
Rockwell, Edward M., discriminating duties, and, in addition, subsidy if necessary	547
Rotch, William, subsidy	546
Scott, Charles H., discriminating duties	543
Seats, John S., discriminating duties, under certain conditions	545
Seelye, L. Clark, discriminating duties	533
Shuler, E. T.—	
Discriminating duties	549
Subsidy, new lines to new ports	549
Skilton, S. Henry, subsidy	538
Smith, J. A., discriminating duties	535
Smith, J. Alden, discriminating duties, under certain conditions	546

	Page.
Home Market Club—Continued.	
Canvass of public opinion concerning methods for developing American shipping, statements of—Continued.	
Smith, William B., free ships	543
Sproul, William C., discriminating duties	543
Stearns, A. T., discriminating duties	537
Stetson, George R.—	
Subsidy, direct aid	542
Naval reserve	542
Sturtevant, Edward H., discriminating duties	548
Stryker, M. W., discriminating duties	538
Swanton, A. F., discriminating duties	537
Thayer, Adelbert D., protection to commerce and navigation	538
Thayer, William, discriminating duties or subsidy; preferably subsidy	549
Thompson, W. D., discriminating duties	538
Tillinghast, A. H., discriminating duties	543
Tinkham, George H., discriminating duties	537
Tuttle, Frank E., discriminating duties or subsidy	537
Wade, H. L., discriminating duties	536
Wells, Calvin, subsidy, direct aid	538
Whiton, L. E., protective tariff	547
Wilson, E. M., subsidy	548
Withers, P. C., discriminating duties	537
Wood, F. W., subsidy, direct aid	535
Woodruff, J. G., discriminating duties	549
Wooley, Mary E., discriminating duties	545
Discriminating duties versus subsidy, opinions considered	531
Resolutions on rehabilitation of American shipping	531
Houghton, Frank A.:	
Statement of	61
Barges—	
Long tows	61, 62
Towage of	61
Wrecked	61
Buoys, destruction by long tows	62
Ships' officers, pay of	67
Seamen—	
Contracts	65
Forecastles	64
Protection of	63
Quarters	64
Treatment of	65
Wages, comparative, America and Great Britain	64, 66
In different ports	68
Towlines, length of	63
Howe, F. O.:	
Statement of	1586
Discriminating duties	1591
Free ships—	
Cost of	1587
Limited period	1586, 1588
Profits in	1588
Fruit trade, Norwegian ships in	1589
Germany, increase of merchant shipping	1589
Officers, American and foreign wages compared	1587
Ship construction—	
American superiority	1589
Cost	1586
Steamship lines to South America, postal subvention for	1589
Subsidy, commercial effect	1590
Howe, Thomas F.:	
Statement	920
Beer export—	
Philippine Islands	921
South American trade	922
Breakage, foreign-trade transportation	921, 922

Howe, Thomas F.—Continued.	Page.
South America, establishment of direct steamship lines to.....	923
Export trade, reshipments in foreign ports for South America.....	922
Exporting of beer, poor shipping facilities.....	920, 922
Howes, Osborne:	
Statement of	651
American officers, no inducements for.....	660
Cunard Line subsidy.....	663
Discriminating duties, retaliatory measures caused by.....	652
Foreign commerce of the United States, cost of transportation.....	651
Free imports to the United States for 1903, tonnage of.....	654
Free-ship policy of France.....	658
Great Britain.....	661, 662
Free ships, foreign trade alone.....	657, 661
Postal subvention.....	663, 666
Ship construction, cost per ton, compared.....	656
Ship maintenance, cost of.....	659
Subsidy—	
Direct aid	654, 668
France	658, 659
Germany	665
Great Britain	663, 666
Italy	665
Japan	666, 667
Hudson, Joseph F.:	
Statement of	732
Erie Canal, improvement of.....	733
Waterways, Great Lakes to the Atlantic Ocean.....	733
Humphrey, Hon. William E., remarks	619, 667, 1124
Humphrey, Capt. William F.:	
Statement of	577
American shipping, decline of.....	577
Cargo ships—	
Speed conditions	580, 581
Tonnage bounty	580
Discriminating duties	582
Mail steamships, speed conditions.....	579, 580
Postal subvention, for regular established lines.....	578
Railway construction	578
Ships, standardizing	582
Subsidy, direct aid.....	579
Hunt, W. H.:	
Statement of	862
American shipping—	
Foreign trade	863
Government aid	862

I.

Import trade of the United States:	
Effect of discriminating duties, indirect trade, on.....	1776, 1786
Abolition of the free list	1778, 1780
Argentina	1784
China and Turkish empires.....	1783
Cuba	1786
Germany and possessions.....	1781, 1782
Great Britain and possessions	1777, 1778, 1779
France and possessions	1781, 1782
Japan	1784
Philippine Islands	1785
Sweden and Norway.....	1785
Switzerland	1784
Cuba, special relations with.....	1786
Foreign nations whose exports to the United States are practically on the free list	1780, 1781
Free list, tonnage in 1903.....	654
Fruit, duty on.....	1550

Import trade of the United States—Continued.	Page.
Tonnage entered and value of imported cargoes (tables)—	
Africa	1774
Asia	1773
Central America	1773
Europe	1772
North America	1774
Oceania	1774
South America	1772
West Indies	1773
Whale fisheries	1775
Recapitulation	1775
Statistics prior to 1821, inaccuracy	1763
Inspection laws, revision	1316, 1458, 1459, 1550
Inspection of steam vessels	191, 987, 990
Insurance, marine	192, 361, 1024
Discrimination against American shipping	194
Incorporation of American companies	195
Lake shipping for foreign trade	703
Pacific Mail Steamship Company	1331
Ship classification	193
Undermanning of ships	644
United States inspection service	194
International conference concerning ship subsidies	904
International Mercantile Marine Company	455
Grain crops exported by	723
Steamship lines of	723
Tonnage	1873
International Seaman's Union of America, members of	589
Iron mines, Pacific coast	1107
Iron ore, freight rates on	781, 859
Irrigation of Western lands	173, 347, 351, 422, 770, 1664
Isthmian Canal trade. (<i>See</i> Panama Canal trade.)	
Italy:	
Anchorage taxes	1799
Subsidized steamship lines to Brazil	441
Subsidies	141, 665, 947
Construction bounty	947
Navigation bounty	947
Tonnage tax law of 1896	1798, 1799
Treaty of commerce and navigation, 1871 (abstract of articles)	257

J.

Jamaica, foreign steamship lines	160
James, Hon. Darwin R., address of	3
Japan:	
Fishermen in navy of	1741
Merchant marine of	LXXVII
Merchant trade, effect of Russo-Japan war	166
Naval transport service	294, 524, 1313
Recognition of value of merchant marine	1744
Subsidized steamship lines	LXXVII, 520, 1155
Subsidies	666, 667, 945, 1048, 1129
Construction bounty	944
Navigation bounty	945
Tonnage bounties	165, 180
Treaty of Commerce and Navigation, 1894-95 (abstract of articles)	259
Japanese steamship lines to New Orleans via Panama Canal	1526
Jayne, H. B.:	
Statement of	1042
Germany, preferential railway rates of	1044
Naval auxiliary	1043
Ocean mail act of 1891, revision of	1043
Sailing vessels, countervailing duties	1044

Jayne, H. B.—Continued.	Page.
Subsidy—	
Great Britain	1044
Mail	1043
Tonnage bounty	1043
Johnson, Alba B.:	
Statement of	306
American shipping—	
Commercial effect of rehabilitation	306
Naval auxiliary	307
Postal subvention	307
Tariff reduction	307
Tonnage bounty	307
Johnson, George H. D.:	
Statement of	903
British ships under Norwegian register	905
Subsidy—	
Grain-carrying trade, effect on	903
International conference proposed	904
Johnson, J. Augustus:	
Statement of	278
Mission launch	283
Naval reserve pension for American sailors	279
Plimsoll load line	279, 282
Seamen—	
Church Missionary Society, work of	278
Mission work among	278, 280
Protection of	278, 280, 282
Sailors' homes and supply stores	283
Savings, protection of	278
Status of	279, 281
Wages, advance	279
Shipping bureau, free	278, 282
Shipping commissioner, additional authority recommended	278
Ships, average life of	279
Johnson, Hon. Tom L., address of welcome	792
Jortall, Nicholas:	
Statement of	1206
Sailors' Union of the Pacific—	
American seamen, percentage of	1206
Discontinued, Pacific coast trade (table)	1209
Entered, Pacific coast trade (table)	1208
Now sailing in Pacific coast trade (table)	1211
Number of years men sailed (table)	1210
Report of committee, ages, nationality, etc., of seamen	1206
Terms of service, Pacific coast trade (table)	1210
Justice, Theodore:	
Statement of	421
American shipping as naval auxiliary	421
Foreign commerce of the United States, cost of transportation	422
Irrigation of western lands	422
Subsidy, commercial effect of	422
K.	
Kane, Dominic:	
Statement of	979
American shipping, protective-tariff policy applied	981
Chinese crews, exclusion of	982
Ship construction—	
Unemployed labor	981
Wage conditions	980
Kay, W. E.:	
Statements of	1615, 1626
American shipping, decline under protective-tariff policy	1615, 1626
Differential duties	1618, 1619
Free ships, effect on American shipyards	1621
Free-trade or protective-tariff policy	1615, 1617, 1620

Killingsworth, W. M.:	Page.
Statement of	1178
American shipping, direct aid	1179
Knight, William R.:	
Statement of	444
Shipping commissioner—	
Arbitration of disputes	446
Complaints against	444
Extension of powers	447
Jurisdiction	446
Kohn, Joseph:	
Statement of	1547
Free ships, limited period	1548
Panama Canal supplies, transportation of	1548
Postal subvention for special pioneer lines	1521
Kremer, C. E.:	
Statement of	699
American shipping, decline of	699
Discriminating duties, indirect trade	702
Free ships or subsidy	701
Great Lakes, foreign tonnage of	703
Lake shipping for foreign trade, insurance on	703
Mail contracts for regular established steamship lines	702
Shipyards, American, importance of	700

L.

Laidlaw, J. Ernest:	
Statement of	1112
American ships in foreign trade from Portland, Oreg	1134
Cunard Line, construction contract	1128
Food on shipboard, cost per man	1134
Free ships—	
Coastwise trade	1124
German policy	1123, 1127
Sweden and Norway	1123, 1127
Postal subvention, withdrawal, effect on established steamship lines	1133
Regular line steamships, foreign ports, establishment of	1131
Ships, operating cost	1130
Subsidy—	
French marine	1123, 1126
Germany	1127
Japan	1129
Naval auxiliary	1125
Postal subvention	1125, 1132
Seamen, for naval reserve	1133
Lake Carriers' Association, agreement with Lake Seamen's Union et al	1747-1753
Lake shipping (<i>see also</i> Great Lakes):	
Bonding value of	870
Capital for investment in	803, 804, 892
Cargo vessels, carrying capacity	707, 735, 738, 743, 900
Ship construction	75
Cost of	295, 706, 710
Standardizing	706
Development of	100, 729, 885, 887
Foreign trade, insurance	703
For national defense	756
For trans-Atlantic operation	710
Freight rates	169, 314, 432, 642, 708, 711, 737, 800, 889
On lumber	1031
Freight-handling facilities	709, 738, 889
Freight ships—	
Operating cost	707, 799
Size of	706, 709, 801, 1167
Protected	706, 709, 801, 1167
Steam tonnage, per cent of	742

Lake shipping—Continued.	Page.
Tonnage	684
Type of vessels	246
Subsidies	734
Wages of seamen	156, 643, 711, 745
Lake ships built for foreign trade, <i>Minnetonka, Minnewaska</i>	811
Lake trade, foreign tonnage	703, 820, 849
La Lanne, Frank D.:	
Statement of	436
Government aid to shipping	436
Landsman and sailor compared	1740
Laverge, Capt. Louis:	
Statement of	69
Americans as seamen	69
Merchant ship competition	72
Seamen—	
Treatment of	70, 71
Wages, American and foreign, compared	69, 71
in different ports	71
Lawson, sailing vessel, facts concerning	670
Lee, Joseph D.:	
Statement of	1145
American shipping—	
Naval auxiliary	1146, 1149
Protective policy for	1150
Rehabilitation of	1149
Capital, American, invested in foreign shipping	1146
Foreign commerce of the United States, cost of transportation	1148
Freight rates, ocean commerce in time of war	1148
Great Britain, Cunard Line subvention	1146, 1150
Postal subvention	1150
Lett, R. M.:	
Statement of	1718
American shipping, Government aid for	1718
Freight ships, discriminating duty or subsidy	1719
Merchant marine, importance in growth of nations	1719
Naval reserve training for American seamen	1719
Postal subvention for fast mail steamships	1718
Lewis, Capt. Joseph M.:	
Statement of	627
Boston and Philadelphia Steamship Company, forecable bill of fare adopted in 1903	628
Pacific trade, employment of Chinese labor	627
Life-Saving Service:	
Extract from—	
Annual report, 1890	45
Annual report, 1893	47
Annual report, 1897	48
Annual report, 1903	49
Annual report, 1899	49
Light dues:	
Germany—	
Bremen	1795
River Weser	1795
Great Britain—	
Provision concerning royal naval reserve	1803, 1804
Scale of payments	1790
Ligherage	235
Linck, J. W.:	
Statement of	1108
American shipping, operating cost	1108
Lindhe, John B.:	
Statement of	1548
American Association of Masters and Pilots of Steam Vessels, Crescent City Harbor, No. 18, statement submitted—	
American shipping—	
Decline	1549
Direct aid for	1549

	Page.
Lindhe, John B.—Continued.	
American Association of Masters and Pilots of Steam Vessels, Crescent City Harbor, No. 18, statement submitted—Continued.	
Import duty on fruit.....	1550
Inspection laws, revision of.....	1550
Naval reserve	1550
Officers licensed	1551
Panama Canal Zone, coastwise restrictions for.....	1549
School ships, Government expense.....	1550
Wages of seamen.....	1550
Linnamann, J.:	
Statement of	207
Seamen—	
American ships	207
Food	207, 208
Quarters	207, 209
Wages	207, 208
Livernash, Hon. Edward J.:	
Statement of	1451
Pacific Ocean trade, Asiatic stokers, employment of.....	1451
Livingstone, Hon. William:	
Statement of	736
American shipping—	
Absence of, foreign trade.....	742
Government aid	744
Canada lake shipping, tonnage of.....	739
Great Lakes, commerce of.....	736
Lake Carriers' Association, agreement with Lake Seamen's Union.....	747-753
Lake shipping—	
Cargo ships, freight-carrying capacity.....	738
Carrying capacity, increase of.....	743
Freight handling, facilities for.....	738
Freight rates	737
Steam tonnage, per cent of.....	742
Wages	745
Panama Canal purchase.....	741
River and harbor improvements.....	740
Sault Ste. Marie Canal, tonnage of.....	737
Ship construction, standardizing.....	743
Suez Canal, tonnage of.....	737
Wage scale adopted by the Lake Carriers' Association for the year 1904 (table).....	746
Load line. (<i>See</i> Plimsoll load line.)	
Logan, U. S. army transport, report of expenditures, etc.....	1427
Lodge, Hon. Henry Cabot:	
Bill to regulate commerce with foreign nations, etc. (S. 2154, 58th Cong., 2d sess.).....	356
General marine insurance.....	361
Mail service	359
Tariff duties	357
Tonnage duties	356
Lord, Hon. Henry:	
Statement of	585
Government aid to shipping.....	586
Sailing vessels as training schools for seamen.....	586
West India trade.....	585
Wooden shipbuilding in the State of Maine.....	585
Lorentzen, A. P.:	
Statement of	1456
American shipping—	
Inspection	1458
Taxation	1462
Dockage rates, America and British Columbia, compared.....	1456
Free ships—	
Foreign trade	1462
Operation of	1463
Licensed officers, sailing vessels.....	1458
Pilotage	1460, 1461

Lorentzen, A. P.—Continued.	Page.
Postal subvention, regular steamship lines.....	1457
Repairs	1464
Sailor's contract.....	1458, 1465
Ship contract with crews.....	1457
Loring, Augustus P.:	
Statement of	631
Free ships.....	632
Navigation laws in regard to seamen, revision of.....	633
Love, Alfred H.:	
Statement of	460
Pan-American Congress on ship construction.....	460
Luce, Rear Admiral Stephen B., U. S. N.:	
Statement of	1735
American shipping and naval development.....	1738
Japan—	
Fishermen in navy of.....	1741
Recognition of value of merchant marine.....	1744
Merchant marine rehabilitation as a military necessity (letter addressed to the Merchant Marine Commission, with indorsements).....	1737
Merchant marine rehabilitation; conference of flag officers at the Naval War College.....	1735
Merchant officers in American wars.....	1738
Merchant ships in American wars.....	1743
Nautical schools	1741, 1742
Naval auxiliaries from merchant service.....	1743
Naval reserve, necessity for, in time of war.....	1739
Officers, merchant marine, certificate of competency.....	1742
Reciprocal relations between military and merchant marine.....	1737
Russians as sailors.....	1741
Sailing vessels—	
Apprentice boys on.....	1740
Value in training seamen.....	1739
Sailor and landsman, compared.....	1740
Volunteer navy in civil war.....	1738
Lumber trade:	
American schooners in	1591
Freight rates—	
Lake shipping.....	1031
Pacific coast.....	1030, 1036
Pacific coast.....	1026, 1032, 1078, 1098, 1099, 1118, 1283
Puget Sound.....	1051, 1053, 1065
Southern States, shipping facilities.....	805
Statistics, Willapa River and Harbor.....	1085
Steam schooners.....	1288
Lumber for Panama Canal:	
Pacific coast trade—	
Foreign vessels.....	1820, 1823, 1824
Protest of Pacific coast ship owners.....	1820, 1824, 1825
Reservation to American shipping.....	1822, 1825
Unemployed American vessels.....	1822, 1823, 1824
Lynch committee of 1872-73 (referred to).....	102, 226, 352, 452, 458, 641

M.

McAlpin, Gilbert B.:	
Statement of	1649
Shipyards, American and British, wages compared.....	1650
McCarrick, J. W.:	
Statement of	1631
American shipping, postal subvention.....	1633
Discriminating duties, indirect trade.....	1633
Norfolk (Va.) shipping, historical review.....	1632
Macdonnell, Samuel B.:	
Statement of	400
American vessels, tonnage in 1903 (table).....	401

	Page.
Macdonnell, Samuel B.—Continued.	
Coal barges	403
Foreign-built tramp ships under American register	403
Foreign-built ships flying the American flag	406
Fruit trade, <i>Admiral</i> ships	403
Sailing vessels—	
Decline in	402
Government inspection of	402
Licensed officers	402
Seamen, advance wages	403
Square-rigged vessels flying the American flag—	
Barkentines	415
Barks	414
Brigantines	416
Ships	412
Steam vessels, American, tonnage of (table)	401
Subsidy, commercial effect of	403
Vessels lost at sea since January 1, 1903 (table)	405
McFarland, Robert:	
Statement of	1039
American seamen as naval reserve	1040
American shipping, Government aid	1039
Asiatic crews, Pacific Ocean trade	1040
McGann, L. E., address	675
McGregor, Capt. J. M.:	
Statement of	778
Freight rates, iron ore	781
Ship construction—	
Labor, cost of	778, 779, 785
Raw material, cost of	780
Raw material, quality of	785
Steel plate, cost of	783
Steel rails, cost per ton	782
Wages—	
Mates, licensed	784
Officers of ships	784
Pilots	784
McNairy, Amos B., address of welcome	791
McRath, T. S.:	
Statement of	1153
Free ships, direct trade	1153
Navigation laws, revision concerning foreign crews	1153
Magdeburg, F. H.:	
Statement of	928
American exports greater than imports	930
British subsidized ships	930
Freight rates on flour, foreign trade	928
Government-built ships for merchant trade	932
Subsidized ships as naval auxiliary	931
Subsidy	930
Mahan, Capt. Alfred Thayer, U. S. N.:	
Statement of	1745
Great Britain—	
Development of carrying trade to injury of her commerce	1746, 1747, 1748
Navigation laws	1745
Naval reserve, value of	1747
Mail contract:	
American Mail Steamship Company	158
New York and Cuba Mail Steamship Company	134
Mail steamships:	
As naval auxiliaries	136, 144, 469, 470, 575, 579, 580, 931, 938, 950, 952, 1125, 1328, 1685, 1756, 1809, 1866, 1867
Rates of compensation	1868
Speed conditions	579, 580

<i>Maine, S. S. :</i>	Page.
Construction—	
Cost	478
Number of men employed.....	478
Wages	470
Mallory, Hon. Stephen R. :	
Remarks of.....	179, 583, 1483, 1487, 1499, 1508, 1579, 1597, 1603
Merchant Marine Commission, powers of.....	1484
Merchant Marine Commission Report to Congress, minority views..	LIII
Mallory Steamship Line :	
Crews, nationality of.....	1500
Officers, nationality of.....	1499
<i>Manchuria, Pacific Mail Steamship Line :</i>	
Construction cost	382
Speed	325
Tonnage.....	325
Manila, hemp export	1069
Manson, Capt. J. L. :	
Statement of	671
American merchantmen as naval auxiliaries.....	672
Boston Marine Society.....	671
Government aid to shipping.....	672
Sailing vessels, mileage bounty.....	673
Speed bounty for American vessels in foreign trade.....	672
Marine competition.....	8
Marine engineers :	
American and foreign, efficiency of.....	1553, 1554
Wages compared.....	1553
Marine Engineers' Beneficial Association.....	1553
Marine engine construction, British subsidies for.....	458, 459
Marine engineering, progress of.....	246
Marine hospital, admission of seamen.....	1300, 1316
Marine Hospital Service, maintenance of.....	xxxiii, lxi
Marine insurance.....	192, 1024
Discrimination against American shipping.....	194
Incorporation of American companies.....	195
Lake shipping for foreign trade.....	703
Pacific Mail Steamship Company.....	1331
Ship classification.....	193
Undermanning of ships.....	644
United States inspection service.....	194
Maritime Association of the port of New York, report of the special com- mittee on the merchant marine.....	135
American shipping—	
Decline of.....	135, 139, 142
Development from 1789 to 1828.....	139
Cost of maintenance.....	138
Cost of operating	138
Naval auxiliary	135, 137
American ships, officers.....	143
Coastwise trade laws, extension to Hawaiian Islands.....	146
Commercial treaties.....	140, 148
Discriminating duties.....	136, 139, 142, 143
Exports—	
To South America.....	143
To West Indies and Central America.....	143
Foreign shipping in West Indian trade, cost of operating.....	141
Imports from South America.....	143
Mail ships and naval auxiliaries.....	136, 144
Ocean mail service, act of 1891.....	145
Postal subvention.....	136, 146
Competitive bids.....	146
Great Britain.....	144
Ship construction—	
Cost of materials	138

Maritime Association of the port of New York, report of the special committee on the merchant marine—Continued.	Page.
Subsidy—	
Cunard Line.....	144
Foreign	137
French	141
Italian	141
Tonnage dues.....	142
“Triangular trade” route.....	143
Report of special committee recommended.....	1291
“Maritime reciprocity conventions examined in detail”.....	249
Martin, Hon. Thomas S.:	
Remarks of	1509, 1604, 1627, 1724
Merchant Marine Commission, powers of.....	1509
Masten, I. J.:	
Statement of	831
American shipping, Government aid.....	834
Chinese labor	834
Subsidy, commercial effect of.....	833
Mates, licensed	345, 784
May, De Courcy:	
Statement of	324
Differential duties	324
Government aid to shipping, tonnage bounty.....	324
<i>Manchuria</i> , steamship—	
Speed of	325
Tonnage of	325
Ship construction—	
Cost in America and Great Britain compared.....	325
Cost of material.....	325
Wages of labor, comparison.....	325
Ships, standardizing	325
Shipyards of the New York Shipbuilding Company, Government work.....	324
Maybury, Hon. William C.:	
Statement of	729
Lake shipping, growth of.....	729
Mears, W. A.:	
Statement of	1120
Freight rates, Pacific coast.....	1120
Pacific Mail Steamship contract.....	1121
Panama Railway contract.....	1121
Meek, Sam. W.:	
Statement of	866
Export trade, shipping facilities.....	867
Subsidy—	
Commercial effect of.....	869
Direct aid	866, 868
Melke, James B.:	
Statement of	999
American navigation statistics (tables).....	1002-1008
American shipping, Government aid for.....	1012
Canada, bounty for deep-sea fisheries.....	1001
Fishing industry of the Pacific coast.....	1008
Freight rates, Puget Sound to Philippine Islands, Government and commercial	999
Puget Sound shipping.....	1000, 1004, 1006
Statistical tables—	
Tonnage of vessels engaged in the trade of the Great Lakes, 1820 to 1903.....	1002
Tonnage of American vessels built and engaged in foreign and domestic trade and fisheries of the United States from 1800 to 1903	1002
Tonnage of vessels entered and cleared in the foreign carrying trade of the United States from 1821 to 1903, with percentage of American trade	1003
Value of import and export trade of the United States carried in American and foreign vessels with percentage carried in American vessels, 1821 to 1903.....	1003

Meikle, James B.—Continued.	Page.
Statistical tables—Continued.	
Percentage of imports and exports carried in American vessels in the foreign trade from 1860 to 1903.....	1003
Number and gross tonnage of the registered vessels of the United States, June 30, 1903.....	1005
Number of registered, enrolled, and licensed steam vessels of the United States, June 30, 1903, in the leading States.....	1005
Value of exports and imports of merchandise of the customs district of Puget Sound for fiscal years 1894 to 1903.....	1008
Tonnage of American and foreign vessels entered and cleared at the customs districts of the Pacific coast during the year ended June 30, 1903.....	1006
Merchandise shipped through foreign forwarding agents.....	842
Merchant Marine:	
Foreign naval auxiliaries.....	1734
Importance in growth of nations.....	1719
Views of eminent statesmen.....	1690-1702
In American wars.....	1743
Japan.....	LXXVII
National necessity, views of eminent statesmen.....	1681
Rehabilitation a military necessity.....	1735, 1737
Reciprocal relations with Navy.....	1737, 1749
Merchant Marine Commission:	
Act of Congress creating.....	4
Duties of.....	4
Expenses of.....	5
Personnel.....	4
Vacancies.....	5
Merchant Marine Commission, report to Congress:	
Act of Congress creating the Commission.....	II
American ships, wages, officers, and crews.....	XI, XII
American shipyards—	
No construction for foreign trade.....	VI
Wages of labor.....	VII, X
Appendix to Commission report—	
A. Tonnage of the United States merchant marine employed in the foreign trade, the coasting trade, and the fisheries, from 1789 to 1904.....	LXIII
B. Tonnage of the world and of important maritime powers.....	LXV
C. The new Cunard subsidy (from the report of the Commissioner of Navigation for 1903).....	LXVI
D. Inquiries as to the free-ship question.....	LXX
E. Summary of American laws for bounties to fishing vessels.....	LXXIII
F. Japan's merchant marine (from the Nautical Gazette, March 3, 1904).....	LXXVII
G. How Sweden encourages deep-sea trade (from the Nautical Gazette, November 10, 1904).....	LXXIX
Brazil, trade with the United States.....	V, XXVI, XXXVII
Cuba, shipping reciprocity in trade with.....	XLIII
Foreign carrying trade of the United States—	
New markets, need of.....	IV
Transportation, cost of.....	V
Foreign discrimination against American agricultural exports, retaliation for.....	XXXVIII
Government aid to American shipping—	
Remedial legislation proposed.....	XVIII, LIII, LVI
Urgent need for.....	XLV, LIII
Hearings held by the Commission.....	II
Legislation recommended—	
Bill to promote the national defense, to create a force of naval volunteers, to establish American ocean mail lines to foreign markets, to promote commerce, and to provide revenue from tonnage (S. 6291, 58th Cong., 3d sess.).....	XLVI
Bill to provide for the use of vessels of the United States for public purposes.....	LI
Estimated cost of.....	XXXV, XXXVI

Merchant Marine Commission, report to Congress—Continued.	Page.
Marine-Hospital Service, maintenance of.....	XXXIII
Naval reserve—	
An essential factor for national defense.....	XVIII
Recruited from deep-sea fisheries.....	XXI, XXIV, XLVI
Naval volunteers—	
Annual retainer recommended.....	XIX, XLVI
Precedents for bounties.....	XX, XXIV
Ocean mail act of 1891—	
American lines operating under contracts provided for, by.....	XXV
Extension recommended.....	XXV
Ocean mail service of the United States—	
Dependent upon foreign fast steamship lines.....	IV
Estimated cost of proposed new routes.....	XXXVII
Naval reserve requirements.....	XXX
North Atlantic problem.....	XLIV
Profits should be applied to extension of service.....	XXXVII
Proposed new routes.....	XXV
Panama Canal, transportation of supplies, reservation to American ships.....	XLI, XLII
Postal subvention—	
Foreign.....	XV
Historic legislation concerning.....	XXX, XXXI
Proposed new routes, comparison of rates.....	XXVIII
Public sentiment unanimous for rehabilitation of American shipping.....	III
Sailing vessels, value as schools of seamanship.....	XXII
Seamen, American, improved service conditions recommended.....	XII
Ship construction—	
Cost of, compared.....	VII, VIII, X
Materials—	
Cost of.....	VIII
Free.....	VIII, X
Steel plate, cost of.....	IX
South Africa, American export trade to.....	XXVII
South America—	
Inadequate trade facilities.....	IV, XXVI, XXVIII, XXXVII
No American ships in trade with.....	XXXVII
Subsidized steamship lines in Pacific Ocean trade.....	XVI
Subsidy—	
American shipping, competition with foreign subsidized steamship lines.....	XV, XVI
Cunard contract of 1902.....	XV, XLV
Policy of foreign nations.....	XIV
Policy of Great Britain.....	XV
Tonnage bounty—	
For cargo vessels especially.....	XXI, XXXII
Rate of compensation.....	XX, XXII, XLVII
Tonnage tax—	
Proposed legislation concerning.....	XXXI, L
Provision of British shipping act of 1898 concerning naval reserve.....	XXXIV
Relation to river and harbor improvements.....	XXXV
Remission in favor of vessels training boys for naval reserve.....	XXXIII, L
Tonnage tax and light dues, how applied.....	XXXII
Transport service, discontinuance of Government vessels recommended.....	XXXIX
Turbine engines for marine propulsion, British experiments in.....	XLIV
Views of the minority.....	LIII
Discriminating duties—	
Abolition of the free list.....	LIV
Abrogation of commercial treaties.....	LIII
Historic American policy.....	LIII
Prosperity of American shipping under policy of.....	LIII, LIV
Legislation proposed, objections.....	LVI, LXI
Marine-Hospital Service, maintenance of.....	LXI
Naval volunteers and naval reserve.....	LIX

Merchant Marine Commission, report to Congress—Continued.	Page.
Views of the minority—Continued.	
Ship construction—	
Admiralty regulations.....	LX
Cost of, compared.....	LV
Materials, cost of.....	LIV
Steel plate, cost of.....	LIV
Steel trust, discrimination against American shipbuilders.....	LIV, LV
Subsidy—	
Admiralty subvention of Great Britain.....	LX
Previous bills compared.....	LVII, LVIII
Public sentiment concerning.....	LVII
Subsidy and subvention, distinction between.....	LX
Tonnage bounties, rates of compensation.....	LVII, LVIII
Tonnage taxes.....	LVI, LXI
Merchant ships, scouts of commerce.....	247, 1734
Melvin, Capt. William W.:	
Statement of.....	1719
Barges—	
Crews.....	1720
Towage.....	1720
Seaboard Transportation Company.....	1719
Ships, overloading.....	1720
Merryman, Capt. H. M.:	
Statement of.....	911
American shipping, rehabilitation of.....	912
Discriminating duties and the cotton trade.....	912
Subsidy, direct aid.....	912, 914
Mexican American Steamship Company:	
Charter rates for ships.....	1561
Norwegian ships.....	1520
Operating cost.....	1520
Railway cooperation.....	1520
Trade route.....	1561
Mexico-Canada steamship agreement.....	986, 1013, 1041, 1479
Meyers, E. T. D., jr.:	
Statement of.....	1703
American shipping rehabilitation.....	1703
Discriminating duties, direct trade.....	1703
Nautical school for officers merchant shipping.....	1703
Mileage bounty.....	469, 571, 574
Milwaukee, hearings at.....	882, 933
Milwaukee shipping, historical review.....	886
Minnetonka, lake steamship for foreign trade.....	811
Minnewaska, lake steamship for foreign trade.....	811
Minor, Hon. Edward S., remarks.....	108, 176, 743, 1161, 1299
Mississippi River improvements.....	1511
Mississippi Valley and Panama Canal trade.....	1532
Mississippi Valley and Orient Steamship Company, projected.....	1524, 1532
Mississippi Valley ocean-shipping facilities.....	1523
Moller, Capt. Jens:	
Statement of.....	1494
American labor conditions.....	1494, 1496
American ships, smaller crews.....	1495
Food on shipboard.....	1498
Free trade.....	1496
French ship subsidies.....	1495
Naval reserve, unnecessary.....	1496
Scandinavian ships, competition in world's trade.....	1494
Seamen—	
Treatment, American and foreign, compared.....	1497
Wages.....	1498
Morgan steamship merger.....	453, 455
Morley, Horatio T.:	
Statement of.....	774
American shipping in the Cuban trade.....	774

Morley, Horatio T.—Continued.	Page.
Cuba—	
Reciprocity in shipping.....	775, 777
Ships sailing under flag of.....	776
Freight rates in trade with.....	775
Pilotage—	
Cuban trade.....	776
Foreign and coastwise trade.....	777
Sugar—	
Imports from Cuba.....	775
Preferential duty.....	775
Morris, Calvary:	
Statement of.....	865
American shipping—	
Capital for investment in.....	865
Railway cooperation.....	865
Reorganization methods.....	865
Subsidy.....	865
Morris, Hon. Thomas J., address of.....	464
Morton, Hon. Paul, Secretary of the Navy:	
Statement of.....	1733
American recognition of foreign ship subsidies.....	1733
American ships, scouts of commerce.....	1734
Establishment of regular steamship lines, foreign trade.....	1734
Foreign merchant marine as naval auxillary.....	1734
Indorsement of letter of Admiral Luce.....	1737
Merchant marine and foreign trade competition.....	1733
Mosle, H.:	
Statement of.....	1489
American ships, Galveston, ocean trade.....	1490
Crews—	
Foreign and American, compared.....	1490
Wages.....	1490
Free ships and free crews.....	1489, 1493
Galveston steamship lines to Central America.....	1508
Norwegian ships, capital invested in.....	1494
Officers—	
American and foreign, efficiency compared.....	1491
Wages.....	1491
Seamen, wages.....	1493
Subsidy, would centralize trade.....	1492
Moss, A. A.:	
Statement of.....	1712
American shipping, protective policy applied to.....	1723
Discriminating duties and tonnage bounty.....	1722
Foreign ship agencies, port of Norfolk.....	1721
Postal subvention based on speed, competitive bids.....	1722
Repairs, American ship.....	1723
Ship construction—	
Newport News Shipbuilding and Dry Dock Company.....	1721
Steel trust, discrimination against American shipbuilders.....	1722
Subsidy, wages.....	1722
Motor boats, inspection service for.....	990
Murphy, David:	
Statement of.....	220
Seamen, American ships—	
Food rations.....	221
Quarters.....	221
Treatment of sailors.....	221
Service of.....	220

N.

National load line. (See Pillsoll load line.)	
Naval apprentices.....	112, 120, 127, 128, 1323, 1324, 1326, 1480, 1740
Naval auxiliaries.....	32, 118, 120, 121, 128, 184, 292, 319, 342, 390, 421, 467, 469, 672, 673, 954, 964, 1021, 1043, 1049, 1062, 1146, 1149, 1171, 1205, 1313, 1713, 1729, 1756, 1866

Naval auxiliaries—Continued.	Page.
American Mail Steamship Company	159
Atlantic Transport Line ships in Spanish-American war	467
Construction materials	160
Foreign merchant ships	1734
Government-built vessels	932
Merchant ships of Japan	294, 524, 1313, 1744
Lake shipping	756
Must come from merchant marine	1743, 1756
Postal subvention insufficient	1756
Speed of	488
Subsidies	136, 144,
467, 470, 575, 579, 580, 931, 938, 950, 952, 1125, 1328, 1685, 1756, 1809	
Use of mail ships	134, 144, 470, 575, 580, 1328, 1685, 1809
Naval militia, State	1754
Naval policy of the United States since Spanish-American war	467
Naval reserve:	
Active commercial marine	1683
American seamen for	91, 774,
851, 880, 1040, 1165, 1169, 1173, 1316, 1550, 1718	
American wars	1686
An essential factor for national defense	XVIII
Annual retainer recommended	XIX, XLVI
Bounty for	1138, 1190
Class of men required	598
Enlisted for five years (Sailors' reserve bill)	1728
Foreign nations, system of	1728, 1731
Great Britain	xxxiv, 419, 1655, 1727, 1803, 1804
Necessity in time of war	1739
Ocean mail service, proposed requirements for	xxx, XLVIII, LIX
Pay of (Sailors' reserve bill)	1729
Pension for American seamen	279
Precedents for bounties to	xx, xxiv
Recruited from deep-sea fisheries	xxi, xxiv, xlvi
Subsidy	1134, 1138, 1190
Trained ship mechanics an important part of	1656
Training for American boys	1311
Training	120, 128, 419
Unnecessary	1496
Value of	1747, 1753, 1879
Naval reserve bill (Senate 2991, 58th Cong.)	1756
Naval Reserves Committee of Great Britain, report on decrease of British seamen	1726
Naval resources limited by lack of merchant marine	1657
Naval vessels, United States:	
Cost of	39, 94
Food and quarters	634, 639, 641
Sailors' contracts	462
Naval volunteers. (See Naval reserve.)	
Navigation act, relating to navigation of vessels, bills of lading, etc. (Public, No. 57)	910
Navigation laws:	
Revision suggested—	
Crews	989, 1153
Free ships	390
Licensed officers	989, 1475
Seamen	52, 313, 503, 562, 576, 633
Great Britain	1745
Concerning seamen deserters	637
Of the First and Second Congresses, tonnage dues	420
Navy and merchant marine, mutual relations	1655,
1656, 1664, 1683, 1684, 1737, 1738, 1749	
Navy of United States:	
Expansion of	961, 1317
Quota of seamen	1756
Training squadron	1325
Training system	1754

	Page.
Netherlands:	
Convention of commerce and navigation additional to treaty of 1852-53 (abstract of articles).....	256
Tonnage-tax exemption.....	1801
Newhall, George A., address of welcome.....	1181
New Orleans, La., hearings at.....	1508-1573
New Orleans:	
American ships in port of.....	1563, 1566
Coffee importation.....	1529
Commercial center.....	1527
Freight-handling facilities.....	1529
Lack of direct communication with Cuba.....	1529
Shipping and foreign trade.....	1515
Tramp shipping.....	1528, 1529
New Orleans Board of Trade resolutions:	
Mississippi Valley and Orient Steamship Company project.....	1524, 1532
Mississippi Valley ocean shipping facilities.....	1523
Newport News, Va., hearings at.....	1627, 1724
Newport News Shipbuilding and Dry Dock Company:	
Contracts executed since organization.....	1643
Pay roll of.....	1647
Ship construction.....	1721
Wages, average, different trades.....	1654
New York and Cuba Steamship Company. (<i>See</i> Ward Line.)	
New York canal improvements.....	756
New York, hearings at.....	3-298
New York Shipbuilding Company, Government work of.....	324
Nixon, Lewis:	
Statement of.....	73
Cargo vessels, competition in construction of.....	75
Coastwise trade.....	77, 80, 82
Discriminating duties—	
Direct trade.....	84, 86, 87
Clause in commercial treaties.....	89
Effect on American shipping.....	87
Lake shipping.....	75
Naval reserve, American seamen for.....	91
Postal subvention.....	85, 90, 91
Seamen, American, scarcity of.....	91
Ship construction—	
American materials, quality of.....	79, 80
Comparative cost of.....	73, 74
Materials, cost of.....	77
Tariff on.....	79, 80
Labor contracts.....	76
Wages.....	75, 76
Shipyards—	
American.....	74, 75
Specializing.....	74
Steel plate, cost of.....	77, 78
Subsidies—	
Foreign.....	83
French bounty system.....	83
Norfolk shipping, historical review.....	1632
North Atlantic trade, unemployed tonnage in.....	723, 727
Northern Pacific steamships, American register.....	1072
Norway:	
American capital invested in ships of.....	1494
Food rations of sailors.....	208
Free-ship policy.....	1123, 1127
Sailors' wages.....	208
Ships, operating cost (table).....	161, 162
Tonnage taxes.....	1800
Norway and Sweden, subsidies.....	947
Norwegian ships of Mexican-American Steamship Line.....	1520
Noyes, Daniel R., report of committee of St. Paul Chamber of Commerce concerning merchant marine.....	1811

O.

	Page.
O'Brien, James A.:	
Statement of	447
Boarding-house masters, dealings with seamen	449
Crews, shipping of	448
Crimps	448, 450, 451
Shipping agents, compensation	449
Wages, advance	448, 450
O'Brien, Capt. J. Ed.:	
Statement of	1595
Discriminating duties, foreign retaliation	1596
Foreign ships, tonnage tax	1596
Schooners, crews, size of	1595
Wages, regulated by unions	1597
Oceanic Steamship Company:	
Operating cost	1204
Postal subvention	1203
Routes of	1202
Ocean mail act of 1891:	
American lines operating under contracts provided for by	xxv
Extension recommended	xxv
Inadequacy	1807, 1811
Modification	90, 119, 145, 1043, 1357, 1807-1811
Rates of compensation	119, 1203, 1810, 1811
Subvention—	
Oceanic Steamship Company	1203
Ward Line	121, 128
Ocean mail service of United States:	
Carriage of closed diplomatic pouches	1808
Dependent upon foreign fast steamship lines	iv, 1807, 1811
Dispatch by quickest lines	1808, 1872
Estimated cost of proposed new routes	xxxvii
Governed by speed conditions	1807, 1809
Naval reserve requirements	xxx, xlviii
North Atlantic problem	xliv
Preference of American lines	1808
Profits should be applied to extension of service	xxxvii
Proposed new routes	xxv
Ocean steamship lines to and from Galveston, Tex. (tables)	1503-1507
Officers:	
American—	
Advance agents for home interests	1287, 1290
And foreign, efficiency compared	1491
Desirable	110, 111, 119, 143, 198, 350, 527
No incentive	660
Treatment of seamen	211
Unemployed	158, 1549
Atlantic Transport Line, nationality	483
British merchant ships, nationality	1319, 1340
Chesapeake and Ohio Railroad Company ships, nationality	1640
Foreign employment of	310, 338, 340, 1490
Licensed	345, 349, 528, 1296, 1316, 1551
Coastwise trade	349
Lake shipping	1298
Resolutions adopted by Chamber of Commerce, San Francisco	1296
Revision of navigation laws in regard to	338, 989, 1475
Sailing vessels	402, 996, 1298, 1458
Mallory Steamship Line—	
Nationality of	1499
Pay of	1491
Merchant ships in American wars	1738
Nationality	310, 338, 340, 347, 350, 483, 1086, 1319, 1340, 1390-1408, 1640
Naturalization	340
Pacific Mail Steamship Company—	
Nationality	1390-1408
Pay of, compared	1338, 1360-1389

Officers—Continued.	Page.
Pay of, compared.....	67,
301, 527, 561, 670, 784, 1086, 1338, 1360-1389, 1491, 1538, 1562,	1587
Percentage of ship's earnings.....	1094
Sailing vessels.....	670, 984, 1157
Should hold certificate of competency.....	1742
United Fruit Company, pay of.....	1538
Ward Line.....	120
Oldham, Joseph R.:	
Statement of.....	1465
American shipping—	
Government insurance of.....	1468
Protection applied to.....	1470
Construction bounty.....	1467, 1469
Register tonnage law.....	1468
Shipyards, Great Britain.....	1466
Subsidy, construction bounty.....	1467, 1469
Tramp ship tonnage of Great Britain, development of.....	1467
United States Standard Register of Shipping, tonnage classed with.....	1466
Operating bounties.....	19
Orcutt, Calvin B.:	
Statement of.....	36
Battle ships, cost of.....	39
Cargo ships—	
Construction cost.....	36, 41
Type of.....	42
Discriminating duties, direct trade.....	37
Great Britain, merchant ships—	
Cost of construction.....	36
Cost of materials in.....	40
Cost of operating.....	37
Postal subvention.....	38
Ship construction—	
America and Great Britain, comparative cost.....	36, 41, 43
Labor, cost of.....	39
Materials, cost of.....	39, 40
Negro labor.....	42
Steel, cost of.....	43
Tramp ships—	
Construction cost.....	36, 38, 41
<i>King David</i> , construction cost, statistical table.....	43
Oregon, products of.....	1119
Organized labor, position concerning subsidies.....	835
Oriental trade controlled by regular line steamships.....	514
Osborne, James O.:	
Statement of.....	221
Seamen—	
Kidnaping.....	222
Treatment of.....	222
Wages, advance.....	224
Seaman's union, treatment of nonunion sailors.....	222

P.

Pacific coast trade.....	1025
Advantages of Panama Canal.....	1186
Asiatic crews.....	1040
Competition in.....	1155
Discriminating duties, effect on.....	1201
Fisheries.....	992, 995, 1008
Foreign shipowners.....	1164
Flour export.....	1119
Freight rates, affected by foreign ships.....	1283, 1284
Freight rates on lumber for export.....	1030, 1036
Grain export.....	1033, 1035
Harbors for deep-draft vessels.....	1284
Lumber export.....	1026, 1032, 1099, 1118, 1283
Sailing vessels.....	1284

Pacific coast trade—Continued.	Page.
Salmon fisheries.....	992
Seamen, statistics concerning (tables).....	1208-1211
Unemployed tonnage.....	1029
Wheat export.....	1118
Pacific Mail Steamship Line:	
American-built ships.....	466
Competition in South American trade.....	1334
Contract with Panama Railway Company.....	1121
Crews, nationality of.....	1348, 1390-1408
Food cost.....	1345, 1409
Insurance.....	1331
<i>Manchuria</i> , S. S. tonnage of.....	325
Net earnings for 1904.....	1356
Officers, pay of, compared.....	1338, 1360-1389
Operating cost.....	1331-1346
Panama Railway contract.....	1121
Postal contract, abrogation.....	1323, 1332
Ship construction, cost.....	1331, 1350-1355
Wages, American and foreign, compared.....	1333-1348, 1360-1389
Pacific Ocean trade	977
American-built ships.....	1174, 1179
Asiatic stokers, employment of.....	1451
Boston Steamship Company.....	1068
British subsidized steamship lines.....	1066
Chinese cheap labor.....	175, 627, 939, 982, 1040, 1087, 1088, 1102
Competition.....	166, 938
Cost of labor.....	168
Crews, employment of aliens.....	772
Establishment of regular steamship lines.....	979
Foreign ships.....	1055
Foreign subsidized S. S. lines in.....	xvi
Northern Pacific steamships.....	1066, 1072
Officers—	
Nationality.....	1086
Pay of.....	301, 1086, 1338
Port charges.....	939, 1279, 1291
Ships, operating cost compared.....	301, 1331-1346
Wages.....	301, 1029, 1057, 1086, 1333-1348
Pacific Ocean steamship lines, contracts with railroads.....	1054
Pack, Charles L.:	
Statement of.....	804
American shipping, Government aid.....	805
Lake shipping, capital invested.....	804
Southern lumber trade, shipping facilities.....	805
Panama Canal:	
Commercial value.....	864, 1186, 1314, 1523, 1525
Competition for trade.....	1540
Japanese steamship lines to New Orleans via.....	1526
Purchase.....	741
Steamship lines to the Orient via.....	1525
Supplies, transportation of.....	xli, xlii, li, 1539-1542, 1548, 1820, 1822
Panama Canal Commercial League, organization of	1524
Panama Canal lumber trade of Pacific coast:	
American shipping unemployed.....	1822, 1823, 1824
Foreign vessels—	
Extract from <i>San Francisco Daily Commercial News</i>	1823
Extract from <i>San Francisco Examiner</i> , October 30, 1904.....	1824
Reservation to American shipping.....	1820, 1822, 1825
Protest of Pacific coast shipowners against foreign vessels.....	1820, 1824, 1825
Panama Canal Zone, coastwise laws applied to.....	1549, 1820, 1822, 1825
Panama railway contract, Pacific Mail Steamship Company.....	1121
Pan-American commerce.....	437
Pan-American Congress:	
American ship construction.....	460
Recommendation for regular steamship service, United States and Argentina.....	682

	Page.
Parker, Capt. James E.:	
Statements of.....	1634, 1670
Chesapeake and Ohio Railroad—	
Export trade, British ship construction contract.....	1635, 1637
Freight ships.....	1638
Freight ships, nationality of officers and crew.....	1640
Ship repairs.....	1641
Discriminating duties—	
Foreign retaliation.....	1642
Indirect trade.....	1635, 1639
Food and quarters for seamen, American and foreign compared.....	1640
Free ships—	
Effect on American shipyards.....	1636
Operating cost, American crews.....	1635, 1636
Freight ships, chartered.....	1638
Great Britain, postal subvention.....	1635
Postal subvention for pioneer steamship lines.....	1637
Ship construction, labor cost.....	1637
Ship supplies, where purchased.....	1641
Ships, taxation.....	1641
Shipyards, American, direct aid for.....	1637
Subsidy, speed conditions.....	1670
United States and Brazil S. S. Line ruined by foreign subsidized lines.....	1642
Parker, Capt. J. J.:	
Statement of.....	1295
Officers, licensed—	
Letter of the Commissioner of Navigation in regard to.....	1296
Lake shipping.....	1298
Chamber of Commerce, San Francisco, resolution adopted by.....	1296
Sailing vessels.....	1298
Seamen—	
Discharges.....	1300
Hospital service for.....	1300
Parker, Hon. Richard Wayne:	
Statement of.....	1725
American seamen, incentive for.....	1728, 1730
American ships manned by Americans.....	1725, 1726, 1730
French fishermen in naval service.....	1731
Great Britain—	
Employment of foreign crews in merchant marine.....	1727
Naval reserve system.....	1727
Decrease of British seamen (report of naval reserves committee).....	1726
Naval reserve systems of foreign nations.....	1728, 1731
Sailor reserve bill—	
H. R. 5079, Fifty-eighth Congress.....	1728, 1731-1733
Naval auxiliary.....	1729
Naval volunteers enlisted for five years.....	1728
Naval volunteers, pay of.....	1729
Seamen, foreign.....	1726
Subsidy, based on difference in wages.....	1726, 1729, 1731
Parker, W. L.:	
Statement of.....	190
Wages of blacksmiths in American and foreign shipyards compared.....	190
Parrish, J. Scott:	
Statement of.....	1702
Discriminating duties direct trade, limited period.....	1702
Parsons, Otto:	
Statement of.....	44
American ships, undermanning.....	58, 60
Barge crews—	
Class of men employed.....	50, 59
Shipping of.....	55
Wages.....	50
Barges wrecked—	
Lives lost.....	49, 50
Number of.....	49
Type of vessels.....	45, 46, 59

Parsons, Otto—Continued.	Page.
Boston Sunday Journal, extract from	47
Food on shipboard—	
American vessels	51
German vessels	51
Scandinavian vessels	51
Forecastles, size of	58
Life-Saving Service, extracts from the annual reports for the years	
1890, 1893, 1897, 1899, 1903	45, 47, 48, 49
Quarters	58
Seamen's contracts	54, 56
Seamen, modified navigation laws in regard to	52, 53
Wages—	
Comparative, American and foreign	51, 55, 57
In different ports	57
Norwegian	57
Passano, A. C.:	
Statement of	754
American shipping—	
Government aid for	755
Rehabilitation of	754
Canal improvements, New York State	756
Commercial treaties, abrogation of	757
Differential duties	755, 758
German ship canals	756
Lake shipping available for national defense	756
Waterways from Great Lakes to Atlantic Ocean	755
Passmore, Lincoln K.:	
Statement of	418
Government aid to shipping	418
Patton, James A.:	
Statement of	713
Cargo vessels, tonnage of	714
Freight handling, lake and ocean, comparative cost	714
Foreign commerce of the United States, freight rates	715
Foreign wars, effect on ocean freight rates	717
Government aid to shipping	719
South American trade, special subsidy for	719
Sugar bounties, foreign	716
Peabody, Francis H.:	
Statement of	525
Investment of capital in American merchant shipping	525
Peabody, Henry W.:	
Statement of	570
American shipyards, capacity for production	574
Cargo ships, mileage bounty	574
Discriminating duties—	
Commercial effect of	572
Constitutionality of	572
Foreign ships, purchase for American registry	574
Government aid to shipping, free ships	571
Hemp, price of	572
Postal subvention	571
Subsidy—	
Direct aid	571, 573
Mileage bounty	571
Tonnage bounty	573
Pendleton, Fields S.:	
Statements of	149, 286, 674
Brazil, trade with United States	150
Briery, crew of	674
David, comparison of cost of operating under American and Norwegian register	287, 288
Discriminating duties—	
Effect on coastwise trade	149
Indirect trade	150
Food on shipboard	153
Free ships	152

	Page.
Pendleton, Fields S.—Continued.	
Officers, American, unemployed	158
Sailing vessels, decline in	157
Seamen, American born	151
Tonnage dues	149
Wages—	
American Sailor's Union, schedule	153
Coastwise trade	151, 156, 157
Crews	154, 155, 157
In different ports	152, 157
Lake shipping	156
Norwegian seamen	154, 157
Peninsular and Oriental Navigation Company subsidy	1868, 1880
Pennell, H. E.:	
Statement of	1282
American shipping, tonnage bounty	1283
Pacific Coast trade—	
Foreign ships, effect on freight rates	1283, 1284
Harbor for deep-draft vessels	1284
Lumber export	1283
Sailing vessels	1284
Small harbors	1284
Pensacola, Fla., hearing at	1573-1603
Pensacola fishing fleet	1575
Compensation of men	1577
Pensacola vessels in foreign trade	1578, 1579
Pension fund for American seamen	1316
Pere Marquette Steamship Company:	
Carrying capacity of ferries	924, 927
Railroad connections of	924
Petterson, H. L.:	
Statement of	1079
Forecastles	1082
Sailor's contract, violation of	1080, 1082
Seamen—	
Abduction of	1081, 1083
Treatment on American ships	1081
Water supply for seamen	1081
Philadelphia, Pa., hearings at	298-464
Philippine Islands:	
Coastwise trade laws applied to	387, 811, 1073
Trade statistics	225
Pilotage	1460
Coastwise trade	349, 777, 989
Compulsory	1292
Control by Department of Commerce and Labor	1461
Cuban trade	776
Foreign trade	777
Wages	784
Platt, Charles:	
Statement of	435
Free ships, discriminating duties	435
Ships—	
Cost of construction	435
Cost of operating	435
Subsidy, commercial effect	436
Plimsoll load line, for American shipping	279,
	282, 367, 507, 626, 990, 1611, 1704, 1705, 1717
Plummer, Edward C.:	
Statements of	238, 634
American clipper ships	245
American seamen—	
Lack of opportunity for promotion	637
Scarcity of	246, 636, 641
American Seamen's Federation, object of	636

Plummer, Edward C.—Continued.

Page.

American shipping—

Decline of	240
Export trade, five-year periods, 1791 to 1806	241
Importance in national defense	239
Tonnage of	241
Tonnage, per capita, 1790 to 1890	241

Atlantic Carrier's Association, food schedule on shipboard

635

Cargo vessels, cost of

641

Crews—

Abduction of	640
Desertion	637, 639
Quarters for	639

Desertion, navigation laws of Great Britain concerning

637

Discipline on shipboard

634

Free ships, effect on American shipyards

243

Government aid to shipping—

Discriminating duties, abrogation of commercial treaties	245
--	-----

Tonnage tax—

Effect on American and foreign shipping compared	245, 643
Foreign policy of	246

Views of eminent statesmen—

Jefferson, Thomas	239
Madison, James	240
Randolph, Edmund	240
Washington, George	239

Great Britain, Merchant Marine—

Annual earnings	242
Board of trade, supervision of	242, 638
Development of	242
Tonnage of	241

Lake shipping—

Freight rates	642
Type of vessel	246
Wages	643

Lynch committee of 1872-73, referred to

641

Marine engineering, progress of

246

Navy of U. S., food and quarters for seamen

634, 639, 641

Seamen—

Contracts, violation of	637, 639
Preference for American vessels	634
Ship construction, superiority of American	244
Undermanning and marine insurance	644

Porch, James W.:

Statement of	1522
--------------------	------

American shipping—

Independent of railway connection	1534
Protective policy applied to	1531

Chartered steamships

1530

Commercial statistics, compiled from Journal of Commerce

1526

Discriminating duties—

Indirect trade	1533, 1534
Outgoing cargoes	1535

Foreign ship subsidies

1531

Geographical centers of activity

1527

Mississippi, American steamship

1528

Mississippi Valley and the Panama Canal

1532

New Orleans—

Coffee importations	1529
Commercial center	1527
Freight-handling facilities	1529
Lack of direct communication with Cuba	1529
Tramp shipping	1528, 1529

New Orleans Board of Trade resolutions—

Mississippi Valley and Orient steamship project	1524, 1532
Mississippi Valley shipping facilities	1523

	Page.
Porch, James W.—Continued.	
Panama Canal—	
Commercial value to Mississippi Valley trade.....	1523, 1525
Japanese steamship line to New Orleans through.....	1526
Panama Canal Commercial League, organization of.....	1524
Postal subvention.....	1534
River and harbor expenditures.....	1530
South American trade.....	1533
Steamship line to the Orient through the Panama Canal.....	1525
Terminals, railway.....	1534
Tonnage duties.....	1535
Porter, Andrew D.:	
Statement of.....	1453
Brotherhood of Boiler Makers and Iron-Ship Builders of America—	
Membership of.....	713, 1455
Resolutions adopted by.....	713, 1454
Free ships, labor opposition to.....	1455
Repairs, foreign vessels.....	1454
Shipyards in California.....	712
Wages, boiler makers.....	1456
Port charges, American shipping.....	930, 1279, 1291
Portland, Oreg., Chamber of Commerce, report on foreign trade of.....	1118
Portland, Oreg., hearing at.....	1109-1181
Portland Oregonian, extract from interview with ex-Minister John Barrett.....	1112-1117
Ports of call.....	390
Porto Rico and coastwise trade.....	387
Post, Walter A.:	
Statements of.....	1643, 1654
American shipyards, capacity of.....	1647, 1648
Battle ships, construction cost.....	1644
Newport News Shipbuilding and Dry Dock Company—	
Contracts executed since organization.....	1643
Wages—	
Average in different trades.....	1654
Extra for night work.....	1654
Pay roll.....	1647
Ship construction—	
America and Great Britain, cost compared.....	1643, 1644
Coastwise trade.....	1647
Standardizing.....	1645
Wages compared.....	1644
Ships, fluctuating demand for.....	1646
Postal-aid law of 1891:	
American lines operating under contracts provided for by.....	xxv
Extension recommended.....	xxv
Inadequacy.....	1807, 1811
Modification of.....	90, 119, 145, 1043, 1357, 1545, 1807, 1808, 1809, 1810
Rates of compensation.....	119, 1203, 1810, 1811
Subventions—	
American Mail Steamship Company.....	158
Cost per annum.....	1175
Oceanic Steamship Company.....	1203
Postal subvention.....	23, 38, 85, 90, 105, 107, 119, 132, 136, 174, 295, 303, 307, 334, 390, 426, 430, 469, 471, 491, 493, 502, 560, 571, 663, 891, 951, 953, 991, 1019, 1043, 1062, 1071, 1093, 1125, 1141, 1150, 1169, 1205, 1293, 1534, 1633
Allan Steamship Line.....	384
American steamships in oriental trade.....	521
Competitive bids.....	146, 343, 1722
Constitutionality of.....	767
Cunard Line.....	144, 340, 429, 453, 606, 629, 808, 938, 941, 1123, 1146, 1150, 1309, 1622, 1681, 1807
Establishment of regular steamship lines.....	578, 702, 1017, 1048
Fast-mail steamship lines.....	331
First American.....	513, 1162, 1174, 1177, 1279, 1328, 1457, 1718, 1866, 1877
	1680

Postal subvention—Continued.	Page.
Foreign, to regular steamship lines.....	xv
Foreign-built ships.....	340
Great Britain.....	144, 384, 453, 1635
Historic legislation concerning.....	xxx, xxxi
Insufficient for naval auxiliary purposes.....	1756
Limited to seven routes under law of 1891.....	1807
Oceanic Steamship Company.....	1203
Proposed new routes, comparison of rates.....	xxviii
Regular steamship lines to Argentina.....	679, 680, 682, 1861
Regular steamship lines used as naval auxiliary.....	1328
Special pioneer steamship lines.....	1521, 1637
Steamship lines to South America.....	810, 893, 1589, 1602, 1860
Railway mail.....	768, 871
Steamship lines, San Francisco to Manila.....	524
Ward Line.....	121
With discriminating duties.....	1614, 1623, 1624
Withdrawal, effect on established steamship lines.....	1133, 1177
Powell, A. L.:	
Remarks of.....	1627, 1630
Statements of.....	1714, 1724
Ships, overloading.....	1714
Pratt, Louis W.:	
Statements of.....	1063
American-Hawaiian steamship route.....	1069
Coastwise laws, extension to Philippine Islands.....	1073
Coastwise trade, Puget Sound to New York City.....	1069
Government transports.....	1074, 1075
Hemp, importation from Manila.....	1069
Lumber export, Puget Sound.....	1065
Northern Pacific Railway steamships, American registry.....	1072
Postal subvention.....	1071
Puget Sound, exports of.....	1065
Sailing vessels.....	1071
Tacoma, Wash., foreign commerce of.....	1064
Trans-Pacific trade—	
Boston Steamship Company.....	1068
British subsidized steamship lines.....	1066
Northern Pacific Railway steamships.....	1066, 1072
Prentiss, F. F.:	
Statement of.....	844
Brazil, coffee trade.....	845
South America, population.....	846
South American trade—	
Shipping facilities.....	845, 847
"Triangular route" for.....	845
Value of.....	846
Preston, Edgar F.:	
Statement of.....	1202
Oceanic Steamship Company—	
Operating cost.....	1204
Routes of.....	1202
Postal subvention—	
And naval auxiliary.....	1205
Law of 1891.....	1203
Subsidy, constitutionality of.....	1204
Protective-tariff policy applied to American shipping.....	837,
848, 916, 981, 1048, 1150, 1470, 1615, 1617, 1620	
Prussia, treaty of commerce and navigation, 1828-29 (abstract of articles)	254
Puget Sound:	
American tonnage, percentage of.....	1006
Exports.....	1049, 1065
Grain.....	1050
Lumber.....	1051, 1053, 1065
Shipping of.....	1000, 1004, 1006
Trade with Bering Sea, tonnage.....	976
Trans-Pacific trade competition.....	938

Q.		Page.
Quinn, Patrick F.:		
Statement of.....		191
Inspection of steam vessels.....		191
Repairs of vessels.....		191
Wages of coppersmiths in American and foreign shipyards.....		191

R.

Railroad and ship cooperation, through bills of lading.....	230, 234, 236
Railway:	
American construction.....	578
Cooperation in rehabilitation of American shipping.....	229,
236, 237, 238, 865, 880	
Cooperation with foreign steamship lines.....	236, 237, 292, 1520
Mail subsidy.....	470, 768, 871
Randall, Blanchard:	
Statement of.....	474
Grain trade.....	475
Randle, Capt. William G.:	
Statements of.....	325, 394
English law regarding discharge of crews in foreign ports.....	398
Food on shipboard.....	326, 395
Foreign commerce of the United States, amount carried in American ships.....	326
Operating expense—	
Of a 4,000-ton sailing ship per day.....	326
Of a 4,000-ton steamship per day.....	326
Seamen—	
Abduction of.....	395
Abuse of.....	395
Crimps.....	395
Discharge in foreign ports.....	397
Shipping of.....	397
Wages.....	395
Working hours.....	395
Shipping of crews on American ships in foreign ports.....	398
Ships—	
Employees' wages.....	326
Operating cost.....	326
Tonnage bounty.....	326
Undermanning of vessels.....	396
Wages in coastwise trade.....	396
Rapid transit in ocean trade.....	438
Rebates:	
Materials used in ship construction.....	382, 569
Tonnage.....	890, 1171
Wage.....	890
Read, Walter:	
Statement of.....	902
South American trade.....	902
Reciprocity treaty, increase of commerce under.....	1608
Redmond, Capt. Joseph, statement of.....	1555
Red Star Line, Belgian subsidy.....	454
Register tonnage law.....	1468
Regular line steamships, establishment of.....	582,
685, 702, 893, 964, 1017, 1019, 1048, 1131, 1328, 1348, 1860	
Reid, David C.:	
Statement of.....	418
American seamen as naval reserve.....	419
American ships, cost of operating.....	419
David, S. S.—	
Nationality of crew.....	419
Wages under American flag.....	419
Wages under Norwegian flag.....	419
Elder-Dempster Steamship Line, subsidy.....	421
Government aid to shipping, tonnage bounty.....	420

	Page.
Reid, Daniel C.—Continued.	
Great Britain, naval reserve	419
Harlan & Hollingsworth Company, established 1836	418
Navigation laws enacted by first and second Congresses, tonnage dues	420
Ship construction, comparative cost	419
Repairs, ship	10, 191, 427, 712, 1101, 1194, 1443, 1445, 1464, 1723
Chesapeake and Ohio R. R. Co. steamships	1641
Cost of	521, 1350, 1355, 1358
Government and private shipyards compared	1421
Foreign ships	1185, 1454
Foreign wrecked vessels	429, 1188, 1193, 1294
Free ships	1161, 1417
St. Louis, S. S., in foreign yards	1471, 1472
Richards, Alonzo:	
Statements of	372, 462
Coastwise trade, crimping	374
Crews, shipping of	372
Crimps	372, 374
Shipping commissioner—	
Arbitration of disputes	463
Complaints against	374, 376
Ships—	
Accommodations for crews	373
Undermanning	373
Richardson, Thomas:	
Statements of	1112, 1135
American shipping, rehabilitation of	1135
Chamber of Commerce of Portland, Oreg., report of special committee,	
Portland trade statistics	1118
Flour export, Pacific coast trade	1119
Lumber export, Pacific coast trade	1118
Oregon, products of	1119
"Portland Oregonian," extract from interview with Hon. John Barrett	1112-1117
Portland, Oreg., foreign commerce of	1118
Wheat export, Pacific coast trade	1118
Rio de Janeiro, subsidized foreign steamship lines entering port of (report of Minister Adams)	439
Rto, S. S., wreck of	1214
River and harbor improvements	299, 787, 1530
Great Lakes	734, 740, 896
Roach, John B.:	
Statement of	417
Government aid to shipping	417
Roberts, John M.:	
Statement of	1597
Gulf Transit Company—	
Chinese crews	1598
Ship accommodations for seamen	1599
Ships of, American and foreign	1597, 1599
Wage comparisons	1598, 1600
Steamship line to South America, Postal subvention	1602
Robertson, William:	
Statement of	376
Crews, shipping of	379
Crimps, stealing of crews	379
Firemen—	
Shipping of	379
Number on foreign ships	377
Tons of coal handled daily per man	378
Wages	379
Food on shipboard	377
Ships—	
American and foreign conditions compared	376
Undermanning	377
Wages compared	377
Wages, advance	379

	Page.
Robinson, C. W.:	
Statement of	1706
Central Labor Union of Newport News, Va.—	
American shipping, labor interest in rehabilitation.....	1706
Ship construction, ability of American mechanics.....	1707
Robinson, Capt. Leighton C.:	
Statement of	1311
School-ships, naval-reserve training for American boys.....	1311
Roby, A. L.:	
Statement of	1561
Freight rates, Gulf of Mexico.....	1561
Mexican-American Steamship Company—	
Charter rates for ships	1561
Trade route	1561
Ships, operating cost, comparative.....	1562
Subsidy, direct aid	1561
Wages, officers.....	1562
Rolph, James, jr.:	
Statement of	1182
American shipping, taxation of	1185
Commercial treaties, abrogation of.....	1198
Discriminating duties—	
Direct and indirect trade.....	1188
Effect on Pacific coast trade	1201
Foreign retaliation	1197
Foreign wrecked ships, American register	1188, 1193
Free ships—	
Competition with foreign subsidized vessels.....	1196
Foreign trade	1183, 1185, 1192
Freight rates, railroad, "Sherman Act" regulating.....	1183
Naval reserve, bounty for seamen in	1190
Panama Canal, advantages to Pacific coast trade.....	1186, 1822, 1825
Repairs—	
American ships.....	1194
Foreign ships.....	1185
Wrecked ships	1188, 1193
Sailing vessels—	
Naval reserve training for seamen.....	1189
Operating cost	1191
Protection for	1190
Ship construction—	
Capital for investment in, lack of.....	1184
Comparative cost.....	1187, 1193
Steel, reduction of import duty.....	1187
Subsidy—	
Postal and tonnage bounty.....	1189
Withdrawal of	1199
Wages of seamen, American and foreign.....	1196
Rose, Hon. David S., address of welcome.....	882
Rose, Hon. John C.:	
Statement of	509
Boarding-house masters.....	509
Crimping	509
Seaman, advance of wages	509
Rosenberg, Edward:	
Statements of	968, 992
Fishing industry of the Pacific coast.....	992, 995
Fisheries recruiting ground for seamen.....	994
Salmon fisheries, Pacific coast.....	992
Seamen—	
Contracts of.....	973
Desertion	974
Food on shipboard	970, 972
Quarters	970
Treatment of	972
Watch and watch at sea.....	970
Water supply.....	972, 974

	Page.
Rosene, John :	
Statement of.....	975
Establishment of regular steamship line to the Far East.....	979
Pacific Ocean trade.....	977
Puget Sound trade with Bering Sea, tonnage.....	976
Siberia, trade with.....	976
Ross, Capt. Alexander :	
Statement of.....	1625
Free ships, effect on coastwise trade.....	1625
Ross, Capt. J. C. :	
Statement of.....	629
American shipping, decline of.....	630
Subsidy—	
Collins Line.....	629
Cunard Line.....	629
Direct aid.....	630
Great Britain.....	631
Ross, J. N. :	
Statement of.....	1106
Crews, Asiatic, efficiency of.....	1106
Ross, W. P. :	
Statement of.....	1542
American shipping, rehabilitation a commercial proposition.....	1543
Brazil steamship line, speed.....	1546
Free ships, limited period.....	1546
Freight ships, construction cost compared.....	1544
Postal subvention laws, modification of.....	1545
Subsidy policy of foreign nations.....	1545
Tramp ships, foreign, cost per ton.....	1544
World's steamship tonnage.....	1543
Rotch, William :	
Statement of.....	576
American shipping, decline of.....	576
Subsidy, direct aid.....	546, 577
Ruggles, Frederick E. :	
Statement of.....	190
Wages, comparison of rates paid to ship joiners.....	190
Russia :	
Subsidies.....	946
Treaty of commerce and navigation.....	1832, 1833
Abstract of articles.....	255
Volunteer fleet.....	946
Russians as sailors.....	1741
Ryan, John M. :	
Statement of.....	191
Wages of blacksmiths' helpers in American and foreign shipyards compared.....	191

S.

Sailing vessels—	
Apprentice boys.....	112, 1324, 1480, 1740
Coastwise trade.....	296, 526
Coastwise Transportation Company.....	669
Construction.....	104
Cost of.....	107
Countervailing duties.....	1044
Decline of.....	103, 157, 402, 1755
Foreign trade.....	1026, 1032
Government inspection.....	402, 621
Light-dues act of Great Britain, favoring.....	1792
Mileage bounty.....	673
Officers—	
Efficiency of American.....	1157
Licensed.....	402, 984, 996, 1296, 1298, 1458
Pay of.....	670
Operating cost.....	107, 1191
Pacific coast trade.....	1284, 1285

Sailing vessels—Continued.	Page.
Protection for.....	1071, 1190
Naval Reserve training for seamen.....	536, 1189, 1324, 1739
Treatment of seamen.....	1517
Undermanning.....	669
Value as schools of seamanship.....	xxii
Sailor and landsman compared.....	1740
Sailor reserve bill (H. R. 5079, 58th Cong.).....	1728, 1731-1733
Naval auxiliary.....	1729
Naval volunteers, enlisted for five years.....	1728
Naval volunteers, pay of.....	1729
Sailors. (See Seamen.)	
Sailors' homes and supply stores.....	283
Sailors' union, wage scale.....	217
Sailors' union of the Pacific:	
American seamen, percentage of.....	1206
Data submitted by—	
Appendix (H. R. 13771), written by Hon. E. J. Livernash, of California.....	1222-1252
Proposed legislation for seamen (H. R. 13771).....	1222
<i>Rio</i> , S. S., decision of United States circuit court of appeals, San Francisco, Cal., May 9, 1904.....	1214-1221
<i>Rio</i> decision, editorial in Coast Seamen's Journal, San Francisco, Cal., May 18, 1904.....	1221
"The case of the seamen," editorial in Coast Seamen's Journal, June 8, 1904.....	1252
"The seamen's bill" (H. R. 13771), introduced by Representative Livernash, of California.....	1254
"The soul of the ship," editorial in Coast Seamen's Journal, August 3, 1904.....	1262
"Seamen and slaughtermen," editorial in Coast Seamen's Journal, August 3, 1904.....	1272
Members, where employed.....	1212
Seamen, statistics of.....	1206
St. Lawrence traffic route, insurance rates on vessels.....	826
St. Louis, S. S., repairs in foreign shipyards.....	1471, 1472
St. Paul Chamber of Commerce:	
Memorial concerning merchant marine.....	1812
Discriminating duties—	
Foreign retaliation.....	1812, 1815, 1819
Indirect trade—	
Abrogation of commercial treaties.....	1814
British treaty does not apply to.....	1819
Great Britain the principal nation affected.....	1815
Nondutiable goods.....	1814
Possible benefits.....	1814
Merchant marine, Government aid for.....	1820
Table showing imports into Great Britain from United States affected by discriminating duties.....	1815, 1816
Report of Committee on Memorial Concerning Merchant Marine.....	1811
Salmon fisheries, Pacific coast.....	992
Samuels, William S.:	
Statement.....	461
Free ships—	
Foreign trade alone.....	461
With Government aid.....	461
San Francisco, Cal., hearings at.....	1181-1481
San Francisco:	
Export trade.....	1301
Harbor depth.....	1302
Chamber of Commerce, resolutions concerning licensed officers.....	1296
Sans, Antonio:	
Statement of.....	388
Foreign commerce of the United States, cost of transportation.....	389
Free ships—	
Foreign crews.....	393
Foreign trade alone.....	390, 392, 393

Sans, Antonio—Continued.	Page.
Naval auxiliary	390
Navigation laws, amendment in regard to free ships	390
Ports of call	390
Postal subvention	390
Purchase of foreign ships for American registry	389, 392
Shipbuilding materials, duty free	390
Ships, operating cost of	392
Sault Sainte Marie Canal, tonnage of	737
Savannah, Ga., port of	1611
Sayle, Walter D.:	
Statement of	847
American shipping—	
Protection for	848
Government aid	851
Grain trade of the Northwest	849
Great Britain, net earnings of merchant fleet	850
Lake trade, foreign ships in	849
Naval Reserve, American seamen for	851
Subsidy, Great Britain	850
Scandinavian ships, competition in world's trade	1494
Schmidt, Harry:	
Statement of	496
Boarding-house masters	497
Crews, shipping of	497
Crimps, abuse of seamen by	497
Food on shipboard	497, 499
Quarters for crew—	
Lack of water	497, 499
Ventilation of	497
Shipping of crews, bounty for	498
Seamen—	
Treatment of	499
Working hours	499
Wages, advance	497, 499
School, officers of merchant marine	1703
School-ships:	
American	347, 510, 1311, 1325, 1476, 1741, 1742
Foreign	1477
Germany	1324
Government expense	1550
Marine engineers	1471
Schooners:	
Crews, number of men	1595
Lumber trade	1591
Schwerin, R. P.:	
Statement	1317
American boys in seafaring life	1318, 1320, 1323, 1326
American shipping, rehabilitation of	1317
Cadets, merchant steamships	1323, 1326
Crews—	
"American," so called	1348
Chinese and European wages	1341-1346
Congenial routes	1321
Shipped for round voyage	1337
Free crews	1319, 1321
French ship-subsidy laws, extract from report made to French Chamber of Deputies in May, 1902, "Colonial navigation"	1322
Navy of the United States, growth of	1317
Ocean mail act of 1891, revision of	1357
Pacific Mail Steamship Company—	
Competition in South America	1334
Food on shipboard, cost of	1345
Insurance	1331
Net earnings for 1904	1356
Officers, pay of	1338
Operating cost	1331-1346

Schwerin, R. P.—Continued.	Page.
Pacific Mail Steamship Company—Continued.	
Postal contract, abrogation of.....	1323, 1332
Ship construction, cost of.....	1331, 1350-1355
Wages, American and foreign.....	1333-1348
Postal subvention, regular line steamships, to be used as naval auxiliary if needed.....	1328
School-ships—	
America.....	1325
Germany.....	1324
Ship construction—	
Cost.....	1331, 1350-1355
First cost and interest.....	1351
Wages the great factor in.....	1350, 1355
Ships, officers and crews, nationality of.....	1319
Shipyards, repairs, cost.....	1350, 1355, 1358
Subvention, freight ships, on other than regular mail routes.....	1329, 1332
Training squadron, United States Navy.....	1325
Wages—	
American and French compared.....	1347
And the port.....	1335, 1346
At sea and ashore.....	1318
Seaboard Transportation Company, barges of.....	1719
Seabury, George J.:	
Statement of.....	288
Collins Line, competition with Great Britain.....	289
Naval auxiliary.....	292
Purchase of foreign ships for American registry.....	289
Ship construction, American workmanship.....	292
Subsidy—	
Collins Line.....	289
Commercial effect of.....	289, 291
Construction bounty.....	292
Germany.....	293
Limited period.....	291
Seamen:	
American—	
Abduction.....	222,
371, 379, 395, 506, 576, 640, 650, 1081, 1083, 1095, 1658, 1715	
Admission to marine hospital.....	1300, 1316
Apprentices.....	112, 119, 120, 127, 128, 1323, 1324, 1326, 1480, 1740
Boarding houses.....	285, 313, 348, 365, 368, 497, 505, 509, 609, 648, 1105, 1571
Coastwise trade.....	347, 350, 716
Consular authority.....	370, 604, 622
Bill to amend the laws relating to (H. R. 13771).....	589-597
Competition with Chinese cheap labor.....	175, 620, 1088
Contract, violation of.....	54, 56,
65, 114, 168, 462, 495, 505, 529, 604, 637, 639, 647,	
649, 973, 1080, 1082, 1458, 1465, 1567, 1594, 1716	
Contract, naval vessels of the United States.....	462
Crimping.....	313, 365,
368, 372, 374, 379, 395, 448, 449, 450, 497, 509, 605, 609, 648, 1658	
Desertion.....	366, 370, 601, 647, 974, 1480, 1569
Discharge in foreign ports.....	369, 398, 1300
Discipline on shipboard.....	634
Efficiency.....	69, 1214, 1703, 1704
Fishermen.....	994
Improved service conditions recommended.....	XII
Incentives for.....	1728, 1730
Lack of opportunity for promotion.....	637
Liability for damages to.....	605
Mission work.....	278, 280
Naval reserve.....	91, 120, 128, 311, 419, 586, 774, 851,
880, 1040, 1134, 1165, 1169, 1173, 1186, 1189,	
1190, 1316, 1550, 1728, 1729, 1739, 1747, 1753	
Naval reserve pension.....	279, 1316

Seamen—Continued.

Page.

American—Continued

Navigation laws, revision concerning	52, 313, 503, 562, 576, 633, 989, 1153
No incentives	115, 637, 1471, 1571, 1708
Pension fund	279, 1316
Protection of	63, 278, 280, 282, 313, 1717
Scarcity	91, 151, 246, 484, 589, 636, 641, 1517
School ships	347, 510, 1311, 1325, 1476, 1741, 1742
Status of	279, 281
Treatment of	65, 70, 71, 211, 212, 215, 219, 221, 336, 395, 462, 499, 603, 969, 972, 1081, 1475, 1497, 1515
Coastwise trade	212
Sailing vessels	1517
Whaling and fishing vessels	610
Asiatic	169, 175, 616, 620, 1040, 1088
British, decrease of	1726
Chinese—	
Bill to prohibit employment of, aboard American vessels (H. R. 12230)	616
Efficiency	1088
Employment of	175, 616, 620, 1087, 1088, 1102, 1726
Food on shipboard	57, 153, 204, 213, 221, 326, 369, 377, 395, 497, 499, 527, 588, 605, 970, 1176, 1453, 1498, 1501, 1538, 1565, 1640
Atlantic Carriers' Association schedule	639
Cost per man	1087, 1134
Forecastle bill of fare adopted by Boston and Philadelphia S. S. Co. in 1903	628
German ships	51
Navy of the United States	634, 639, 641
Pacific Mail Steamship Company	1345, 1409
Pacific Ocean trade	301
Scandinavian ships	51, 208, 823
Foreign, shipped for long periods	1592
Foreign born—	
In Navy of the United States	1160
Percentage of, on American ships	311
Married, percentage of	1276
Nationality	168, 175, 181, 1165, 1319, 1348, 1390—1408
Naturalization	1565
Navigation laws of Great Britain concerning desertion	637
Navy of the United States, nationality	1165
Negro, coastwise trade	347, 350
Norwegian	154, 156, 157, 208
Pacific coast trade (statistical tables)—	
Entered service	1208
Discontinued service	1209
Number of years' service	1210
Terms of service	1210
Pension fund	279, 1316
Preference for American ships	20, 634
Quarters for. (See Forecastle.)	
Sailing vessels for naval reserve training	586, 1189, 1324, 1739
Savings, protection of	278, 285, 650, 1096, 1566
Shipping of	345, 350, 365, 372, 379, 397, 448, 497, 505, 563, 602, 1105, 1337, 1570, 1571, 1593, 1602, 1716
Wages	169, 175, 215, 332, 345, 395, 462, 746, 1099, 1273, 1288, 1493, 1550, 1570
Advance	208, 219, 224, 279, 343, 348, 372, 379, 403, 443, 496, 497, 499, 505, 509, 648, 1658, 1710, 1717
American and foreign compared	XI, XII, 19, 51, 55, 69, 71, 121, 364, 368, 940, 951, 1093, 1196, 1498, 1538, 1583, 1661, 1708
Asiatic	473, 939, 1087
Atlantic and Pacific compared	1029
Compensation for delay in paying off	599
Controlled by supply and demand	484
Deserters	1100
Different ports	57, 68, 71, 364, 368, 564, 1335, 1346

Seamen—Continued.	Page.
Wages—Continued.	
Great Britain.....	66, 215
Lake shipping.....	156, 643, 711, 745
Statistical tables.....	161,
163, 301, 482, 504, 517, 518, 1273, 1274, 1369-1387, 1413	
Water supply.....	506, 972, 974, 1081
Working hours at sea.....	210, 367, 395, 499, 598, 970, 1213
Seamen's Bethel Home.....	1570
Seamen's union.....	339, 371
Treatment of nonunion sailors.....	222, 350
Seattle, Wash., hearings at.....	934-1046
Sewall, William D.:	
Statement of.....	103
American ships, standardizing.....	106
Apprentices.....	112
Coastwise trade.....	109
Crews—	
Promotion.....	115
Shipping of.....	114
Wages.....	113
Discriminating duties.....	105, 108
Free ships.....	104
Harbor construction, cost of.....	108
Officers of American vessels.....	110
Postal subvention.....	105, 107
Sailing vessels—	
Construction.....	104
Cost.....	107
Cost of operation.....	107, 113
Decline of.....	103
Sailors' contracts.....	114
Shipbuilding materials.....	104
Steel plate, cost of.....	110
Subsidy—	
Constitutionality of.....	105
France—	
Construction bounties.....	105
Operating bounties.....	116
Speed.....	107
Tonnage dues.....	105
Tonnage tax.....	108
Shallenberger, Hon. W. S., Second Assistant Postmaster-General:	
Statement of.....	1807
Carriage of closed diplomatic pouches.....	1808
Cunard Line postal contract.....	1807
Mail dispatch—	
By quickest line.....	1808
Preference for American lines.....	1808
Mails dependent upon foreign fast steamship lines.....	1807, 1811
Postal-aid law of 1891.....	1807, 1808, 1809, 1810, 1811
Postal subvention—	
Limited to seven routes under present law.....	1807
Present law inadequate.....	1807, 1811
Steamship lines to South America for carriage of mail.....	1809
Subsidy, fast-mail steamships for naval auxiliary.....	1809
Shanghaiing. (See Abduction of seamen.)	
Shankland, Archibald:	
Statement of.....	1651
Shipyards, American and British, wages compared.....	1651, 1652
Sherrard, James:	
Statement of.....	1570
Forecastle accommodations.....	1570
Seamen—	
American—	
No incentive for.....	1571
Scarcity of.....	1570

Sherrard, James—Continued.	Page.
Seamen—Continued.	
Boarding houses	1571
Bethel Home	1570
Shipping of	1570, 1571
Wages	1570
Shipbuilding for speculation	17
Ship canals:	
Germany	756
Great Lakes to Atlantic Ocean	733, 755, 761, 762, 827, 828, 894, 903
Projected route for	760
Great Lakes, tonnage record	889
Improvements	759, 760
Shipping commissioners:	
Arbitration between masters and seamen	446, 463, 1096
Authority of	278, 286, 349, 447, 350, 623, 650
Complaints of	374, 376, 444
Jurisdiction	446, 626
Protection of seamen's savings	278, 285, 650, 1096, 1566
Shipping ports of the United States, deep-water	1606
Ship protection by early Congresses	688
Ship protection in the constitutional convention	686
Shipping expansion:	
Errors of foreign nations	1671
Geographical conditions	1670
Ship construction:	
Admiralty regulations	LX
American	200, 294
And British, cost compared	36, 41, 43, 183, 297, 325, 480, 1643, 1644
Mechanics, ability of	1707
Opposition to	355
Shipyard facilities	470, 1415
Superiority of	244, 292, 815, 1537, 1589
Battle ships	16
Bounty	19, 99,
189, 292, 311, 503, 522, 804, 890, 1056, 1098, 1467, 1469, 1629	
British shipyard facilities	1415
Capital, lack of for investment	1184
Coastwise trade	1647
Cost of, comparative	VII, VIII, X, LV, 9, 15, 25, 73,
74, 92, 93, 95, 138, 165, 168, 310, 346, 419, 425, 435, 468, 477,	
515, 568, 656, 798, 816, 936, 962, 1092, 1100, 1187, 1193, 1586	
Designs	1412
First cost and interest	1351
French subsidy act of 1893	269
Germany	11, 1443, 1446
Great Britain, cost of	28, 424
Great Britain and Germany, statistics	1442
Great Lakes, cost of	706
Stagnation in	705, 710
Standardizing	706
Labor—	
Contracts	76
Cost of	39, 101, 102, 181, 297, 302, 778, 779, 785, 1090, 1412 1621, 1637
Unemployed	981
Labor interests in	841
Labor-saving devices	424
Limited protection	1140
Materials—	
Cost of	VIII, LIV, 39, 40, 77
104, 138, 295, 297, 325, 335, 381, 423, 481, 565, 780, 925, 1415	
Quality of American	79, 80
Quality of foreign	32
Quality of raw	785
Free	VIII, X, 390, 1485
Rebate on	382
Steel and iron, comparative lifetime of	1871
Tariff on	79, 80

Ship construction—Continued.		Page.
Naval requirements excessive.....		1417
Negro labor.....		42
Pacific Mail Steamship Company, cost of.....	1331, 1350-1355	
Standardizing.....	14, 106, 325, 522, 582, 706, 743, 1419, 1645	
Stagnation in.....	712, 721, 936	
Steel plate, cost of.....	IX, LIV, 43, 77, 78, 92, 97, 110, 423, 565, 782, 783, 811, 812	
Tonnage bounty.....		1559
Tonnage built, America and Great Britain, in the years 1858 to 1861 (table).....		1769
Trades involved.....		961
Tramps, ships, cost of.....		1285
Wages.....	VII, X, 75, 76, 92, 101, 325, 363, 382, 423, 980, 1350, 1355, 1413, 1419, 1456, 1644, 1650, 1652	
Ships:		
American—		
Age limit.....		1881
Average speed of.....		158
Discipline on.....		527
Galveston trade.....		1490
Life-boat requirements.....		216
Manned by Americans.....	1725, 1726, 1730	
Number of men in engine room.....		1285
Number operated under foreign flags.....		201
Scouts of commerce.....	247, 1734	
Service conditions on.....		220
Smaller crews.....		1495
American built—		
As cup winners.....		815
Pacific Ocean trade.....	1174, 1179	
Pacific Mail Steamship Company.....		466
Trade of United Fruit Company.....		815
American register—		
Foreign trade from Portland, Oreg.....		1134
Port of New Orleans.....	1563, 1566	
Average life of.....	185, 279, 468	
Depreciation, annual percentage.....		1878
Foreign-built vessels flying the American flag (statistics)—		
Barges.....		410
Barks.....		409
Barkentines.....		410
Brigs.....		410
Schooners.....		410
Ships.....		409
Steamers.....		407
Foreign register owned by Americans.....		1287
Foreign, withdrawal for war purposes.....	819, 820, 1165, 1766, 1873	
Fluctuating demand for.....		1646
Fruit trade, class of.....		1565
High-class passenger, cost of.....		425
Norwegian, service conditions.....		376
Operating cost.....	13, 138, 295, 309, 346, 392, 419, 435, 487, 509, 659, 1130	
Compared.....	161, 162, 163, 164, 184, 198, 301, 326, 895, 1108, 1285, 1286, 1552, 1562, 1661	
Overloading.....		1714, 1717
Profits.....		500
Repairs.....	10, 130, 191, 427, 429, 712, 1101, 1161, 1185, 1188, 1193, 1294, 1350, 1355, 1358, 1417, 1421, 1443, 1445, 1454, 1464, 1471, 1723	
Size, compared with channel depth in various harbors.....		1875, 1876
Standardizing.....	14, 106, 325, 522, 582, 1645	
Transfer of flag in time of war.....		467, 1689
Undermanning.....	58, 210, 217, 369, 373, 377, 396, 507, 611, 1703, 1704, 1709, 1717	
Undermanning and insurance.....		644
Water supply for crews.....	506, 972, 974, 1081	
Wrecked foreign, for American register.....	1188, 1193, 1446, 1450	

Shipyards:	Page.
American	74, 75, 320, 321, 323, 700
Capacity of production	574, 1647, 1648
Competition, Government and commercial	1419, 1473
Direct aid for	1629, 1637
Free ships, effect on	426, 528, 838, 1416, 1514, 1621, 1636, 1752
Government work	961
No construction for foreign trade	vi, 1750, 1751
Stagnation in	705, 712, 721, 936
Strikes	917
Unemployed labor	838
Why idle	18
American and foreign, labor conditions compared	817
American and Great Britain, wages compared	75,
92, 101, 325, 423, 980, 1350, 1413, 1644, 1650	
American Shipbuilding Company	705
Canadian	706
Government—	
Dependence on commercial yards for better class of labor	1418
Labor cost	1473
Government and commercial—	
Repair work, cost of	1421
Wages compared	1419
Grays Harbor, Washington	1078
Great Britain	1466
Naval contracts	1416
New York Shipbuilding Company, Government work	324
Protection for American labor	839
Specializing	74, 798
Standardizing	4, 106, 325, 522, 582, 1419, 1645
Wages	vii, x, 75, 76, 92, 101, 191, 325, 363,
383, 423, 980, 1350, 1355, 1413, 1419, 1456, 1644, 1650, 1651, 1652, 1654	
Siberia, trade with	976
Sickel, W. G.:	
Statement of	723
American shipping, decline of	724
Freight rates, foreign trade	725
International mercantile marine—	
Grain crops exported by	723
Steamship lines of the	723
North Atlantic trade, idle tonnage in	723, 727
Subsidy—	
Commercial effect of	726
Foreign	727
Smith, Alfred G.:	
Statement of	116
American shipping—	
Decadence of	117
Naval auxiliary	118, 120, 121, 128
Officers of	119
Tonnage dues	119
Cargo vessels, speed subsidies	123
Commercial treaties	117
Crews, training for naval reserves	120, 128
Discriminating duties	117
Foreign ships purchased for American register	117
Free ships	117
Mail contracts executed between the United States Post-Office Department and the New York and Cuba Mail Steamship Company	134
Postal subvention	119, 132
Subsidy, commercial effect of	118
Wages, American and foreign, compared	121
Ward Line—	
Auxiliaries in Spanish-American war	121
Cadets	120, 128
Cost of construction	131

Smith, Alfred G.—Continued.	Page.
Ward Line—Continued.	
Dividends of	125
Financial status	124
Freight competition	127
Officers	120
Postal subvention	121, 122
Repairs	130
Ships of—	
As Government transports	128
Where built	129
Statistical tables	133
West Indies, foreign subsidized lines to	132
Smith, R. A. C.:	
Statement of	158
American Mail Steamship Company—	
"Admiral" ships	158
Cost of operating	158
Naval auxiliary	159
Postal subsidy	158
Speed average of ships	158
Foreign steamship lines to Jamaica and West Indies	160
Great Britain, Elder-Dempster Company subsidy	160
Naval auxiliary, construction materials	160
Ships—	
Operation of, comparative cost, American and German	163, 164
Operation of, comparative cost, American and Norwegian	161, 162
Statistical tables, wages	161, 163
West Indies trade—	
American Mail Steamship Company	158
Competition in	160
Snuggs, A. E.:	
Statement of	923
Export trade, shipping facilities	924
Pere Marquette Steamship Company—	
Capacity of ferries	924
Railroad connections	924
South Africa, American export trade to	xxvii
South America:	
Export trade, value	846
Freight transportation to	1159
Inadequate trade facilities. iv, xxvi, xxviii, xxxvii, 806, 845, 847, 872, 892, 902	
Mail facilities	1019, 1809
No American ships in trade with	xxxvii
Population	846
Reciprocity treaty with	788
Establishment of American steamship lines to. 810, 893, 923, 1589, 1602, 1713	
Steamship lines to—	
Foreign	1158
Postal subventions for	719, 893, 1860
Subsidized	438-443, 1141
Turbine engines, use of	1862
Trade with	437, 439, 575, 677, 872, 1533
"Triangular" route to	438, 575, 808, 845, 879
West coast trade	893
Spain, tonnage taxes	1800
Speed bounty for ships	123, 426, 515, 672
Spencer, S. C.:	
Statement of	1164
American shipping, labor interest in	1167
Freight transportation, foreign trade, war effect on	1165
Lake shipping, absolutely protected	1167
Naval reserve	1165
Pacific coast, foreign shipowners	1164
Seamen, United States Navy, American born	1165
Subsidy, commercial effect	1166

Stanbury, G.:	Page.
Statement of -----	297
Ship construction—	
Cost of labor -----	297
Cost of material -----	297
Comparison of cost, America and Great Britain -----	297
Statistical tables:	
American shipping in British trade, tonnage of American and British shipping entered and cleared with cargoes in Great Britain in trade with the United States, 1853 to 1895 -----	1769
American vessels—	
Entered at and cleared from the United Kingdom, 1860 to 1895, inclusive -----	1770
Unemployed on Puget Sound November 5, 1904 -----	1824
Crews, lists of Pacific Mail Steamship Company showing percentage of American officers and men in each department -----	1390-1408
Food on shipboard—	
Atlantic Carriers' Association -----	635
Statement showing cost of feeding officers and crews on Pacific Mail Steamship Company's steamers, Panama line -----	1409
Statement showing cost of feeding officers and crews on Pacific Mail Steamship Company's steamers, trans-Pacific line -----	1409
Forecasts and protection of crews, extract from the report of the Surgeon-General of the Marine Hospital Service, 1903 -----	600
Foreign trade of the United States—	
Exports of merchandise by ships of principal flags, 1902 -----	265,695
Imports of merchandise by ships of principal flags, 1902 -----	265,696
Imports and exports carried in American vessels in the foreign trade, percentage from 1860 to 1903 -----	1003
Import and export value of merchandise of the customs district of Puget Sound, fiscal years 1894 to 1903 -----	1008
Import and export trade of the United States carried in American and foreign vessels, with percentage carried in American vessels, 1821 to 1903 -----	1003
Tonnage of American vessels built and engaged in foreign and domestic trade and fisheries of the United States, 1800 to 1903 -----	1002
Tonnage of American and foreign vessels entered and cleared at the customs districts of the Pacific coast during the year ended June 30, 1903 -----	1006, 1007
Tonnage of American and foreign vessels entering the United States, 1789 to 1820, inclusive -----	1764
Tonnage of American and foreign vessels entered and cleared the United States, 1821 to 1895 -----	1767
Water shipments, 1902, Willapa River and Harbor -----	1085
Tonnage and comparative carriage in foreign trade before and after reciprocity agreements -----	693
Tonnage of the United States merchant marine employed in the foreign trade, the coasting trade, and the fisheries, from 1789 to 1904 -----	LXIII
Tonnage of vessels entered and cleared in the foreign carrying trade of the United States from 1821 to 1903, with percentage of American trade -----	1003
Freight rates—	
Diagram—course of annual average ocean freight rates on wheat per ton to Europe for twenty years in pounds sterling per ton -----	204
Statement showing comparison of rates on various commodities for domestic and export purposes from Chicago and East St. Louis, Ill., to Boston, New York, Philadelphia, and Baltimore -----	232
Statement showing comparison of rates on various commodities for domestic and export purposes from Pittsburg, Pa., to Boston, New York, Philadelphia, and Baltimore -----	233
Statement showing comparison of rates on various commodities for domestic and export purposes from Kansas City, Mo., to Galveston, Tex., and New Orleans, La -----	234
Grain fleet of the Pacific coast, class of vessels -----	1034

Statistical tables—Continued.	Page.
Great Britain, imports from the United States affected by discriminating duties.....	1815, 1816
Great Lakes, tonnage of vessels engaged in the trade of, 1820 to 1903.....	1002
Import trade of the United States—	
Application of discrimination to indirect trade.....	1777
Argentina.....	1784
China and Turkish Empire.....	1783
France and possessions.....	1781
Free list, abolition of.....	1778
Germany and possessions.....	1781
Great Britain and possessions.....	1777
Japan.....	1784
Philippine Islands.....	1785
Sweden and Norway.....	1785
Switzerland.....	1784
Tonnage entered, and value of imported cargoes—	
Africa.....	1774
Asia.....	1773
Central America.....	1773
Europe.....	1772
Oceania.....	1774
North America.....	1774
Recapitulation.....	1775
South America.....	1772
Whale fisheries.....	1775
West Indies.....	1773
Life-Saving Service, number of lives and barges lost in fiscal year ended June 30, 1903.....	50
Lumber trade—	
Pacific coast.....	1027, 1028
Logs floated and rafted from streams emptying into Willapa Bay, 1902.....	1085
Ocean steamship lines to and from Galveston, Tex.....	1503-1507
Seamen—	
Showing as to sailors in the Pacific coast trade—the duration of each seaman's service in the trade, the duration of service of seamen in that trade considered by nationality, the fluctuation of numbers in service year by year, and the number now engaged in that trade, with deduced percentages.....	1210, 1211
Showing as to sailors in Pacific coast trade—their nativity, age, year of first sailing in that trade and year of leaving it, together with percentages deduced from the statistics given.....	1208, 1209
Entered Pacific coast trade.....	1208
Discontinued Pacific coast trade.....	1209
Now sailing in Pacific coast trade.....	1211
Number of years sailed, Pacific coast trade.....	1210
Terms of service, Pacific coast trade.....	1210
Ship construction—	
Michigan and Maine, cost of.....	481
Tonnage built, American and Great Britain, 1858 to 1861.....	1769
Tramp ship <i>King David</i> , construction cost.....	43
Shipping subsidies, 1902.....	941-948
Ships—	
In foreign trade from Brunswick, Ga.....	1609
Statement showing comparative cost of operating trans-Pacific steamers with mixed European and Asiatic crews versus European.....	1410
Tonnage of American steam vessels.....	401
Showing the number of registered, enrolled, and licensed steam vessels of the United States, June 30, 1903, in the leading States.....	1005
Showing the number and gross tonnage of the registered vessels of the United States, June 30, 1903.....	1005
Steam vessels now lying idle on Puget Sound.....	1824
Vessels employed in 1902, Willapa River and Harbor.....	1086
Vessels lost at sea since January 1, 1903.....	405

Statistical tables—Continued.	Page.
Tonnage of the world and of important maritime powers.....	LXV
Tonnage of the world, total annual.....	331
Tonnage taxes—	
Lake ports, year ended June 30, 1904.....	1803
And bounties paid, French shipping.....	1797
Transports—	
Abstract of expenditures; report of army transports for voyages ending at San Francisco, Cal., during the fiscal year 1903, compiled on basis of the "Seattle bid".....	1432
Abstract of expenditures; report of army transports for voyages ending at San Francisco, Cal., during fiscal year ending June 30, 1904, compiled on basis of "Pacific Mail bid".....	1431
Turbine engines—	
Analysis of coal-consumption results.....	1852
Analysis of water consumption results.....	1851
Boiler results at full power.....	1848
Results of steam trials of H. M. S. <i>Amethyst</i> with Parsons' steam turbines.....	1849
Results of steam trials of H. M. S. <i>Topaz</i> with reciprocating engines.....	1850
Wages—	
American coasting steamers.....	1288
American and English steamship wages, monthly comparative statement.....	301
American and English, rate of wages per month, compared.....	482
Comparative.....	161, 163, 164, 504
Cost of manning an English steamer of 2,500 tons.....	1667
Cost of manning an English steamer of 2,000 tons.....	1666
Cost of manning an English steamer of 1,900 tons, under American management.....	1667
Cost of manning Italian steamer of 3,000 tons.....	1668
Crews, comparative crew lists showing wages paid per month and per year on steamers owned and operated by the Pacific Mail Steamship Company under American flag versus competitive steamers operated under foreign flags.....	1360-1389
<i>David</i> , steamship.....	153
Lake Carrier's Association, 1904.....	746
Mechanics, rate paid in San Francisco in maintaining and repairing steamers.....	1411
Partial list of wages paid in different occupations on shore in San Francisco.....	1274
Sailing vessels, statement showing the rate of wages paid out of the port of San Francisco.....	1410
Seamen, American and British compared.....	517
Seamen, American and German compared.....	518
Seamen, American and Norwegian compared.....	517
Seamen, prevailing monthly wages of able seamen on sailing ships from American ports (deep-water trade) from 1900 to 1904.....	1274
Seamen, on sailing ships (deep-water trade) from 1870 to 1900.....	1273
Seamen, prevailing monthly wages of able seamen on steamships sailing from American ports (deep-water trade), 1900 to 1904.....	1274
Seamen, wages of able seamen on steamships sailing from London and Liverpool on different voyages, 1880 to 1900.....	1274
Seamen, statement showing the rate of wages on steamers paid out of the port of San Francisco.....	1411
Seamen, statement showing the rate of wages on steam schooners paid out of the port of San Francisco.....	1410
Shipyards, comparison of average wages paid per week at twelve British shipyards and the average for same class of men in Union Iron Works, San Francisco.....	1413
World's merchant marine, 1895 and 1900 to 1903.....	202
Steam schooners for lumber trade.....	1288
Steamship-inspection service.....	191, 987, 1458, 1550

	Page.
Steeb, J. T.:	
Statement of	1099
Lumber trade, Pacific coast	1099
Seamen, wages of deserters	1100
Ship construction, cost	1100
Steel plate, cost of	ix, liv, 43, 77, 78, 92, 97, 110, 565, 783, 811, 812
Prior to Spanish-American war	423
Tariff reduction	565, 567, 570, 1187
Steel rails, cost per ton	782
Steel trust, discrimination against American shipbuilders	liv, lv, 1722
Steidle, Eugene:	
Statement of	1452
Coastwise trade, wages, steward's department	1452
Food on shipboard	1453
Foreign trade, wages, steward's department	1452
Stetson, David S.:	
Statement of	344
Government aid to shipping, tonnage bounty	346
Licensed mates	345, 346
Seamen—	
Shipping of	345
Wages	345
Stevenson, E. K.:	
Statement of	399
American Steamship Company, organization of	399
Government aid to shipping, tonnage bounty	400
Stewart, C. Morton, jr.:	
Statement of	485
Brazil trade	487, 492
Commerce destroyers, speed of	488
Free ships with differential duties	487, 490
Postal subvention	491, 493
Purchase of foreign ships for American register	489
Seamen, contract with	495
Ships, cost of maintenance	487
Subsidy, commercial effect of	488, 493
Wages of seamen, advance	496
Stillman, J. E.:	
Statement of	1579
Pensacola, port of, vessels in foreign trade	1579
Subsidy, direct aid	1580
Stillwell, William B.:	
Statement of	1611
American shipping, rehabilitation of	1612
Savannah, Ga., port of	1611
Stokers, Asiatic, employment of	1451
Stone, George F.:	
Statement of	683
Agriculture exports of the United States, value of	684
American shipping, rehabilitation of	684
Great Lakes shipping, tonnage of	684
Storrow, James J.:	
Statement of	525
Investment of capital in American merchant shipping	525
Stratton, E. Platt:	
Statement of	192
Foreign commerce of the United States, manipulated by foreign commercial agents	192
Marine insurance—	
American companies	195
Discrimination against American shipping	194
Ship classification	193
United States inspection service	194
Subsidy (see also Government aid to American shipping):	
A matter of national defense	1805
American shipping, for competition with foreign subsidized lines	xv, xvi
Based on difference in wages	1722, 1726, 1729, 1731

Subsidy—Continued.	Page.
Belgium, Red Star Line.....	454
Brazil.....	442
Canada—	
Canada-Mexico steamship agreement.....	986, 1013, 1041, 1479
Deep-sea fisheries.....	1011
Canadian Pacific steamships.....	938, 1048
Collins Steamship Line.....	289, 304, 556, 629, 1303, 1699
Commercial effect.....	118, 167, 184, 203, 291, 316, 322, 346, 351, 422, 432, 488, 493, 502, 584, 726, 833, 869, 1013, 1166, 1304, 1308, 1590
Competitive tenders.....	146, 323, 343, 468, 471, 476
Constitutionality of.....	26, 105, 336, 553, 763, 766, 1204
Construction bounty.....	19, 99, 189, 292, 304, 311, 503, 522, 890, 1056, 1098, 1467, 1469, 1629, 1861
Competitive bids.....	472, 476
Cunard Steamship Line.....	144, 429, 606, 629, 663, 808, 938, 1146, 1150, 1309, 1681, 1807
Special subvention of 1902.....	xv, xlv, lx, lxvi, 456, 458, 941, 1128, 1622, 1807, 1878
Definition.....	734, 795, 787, 898
Direct aid.....	29, 37, 38, 105, 166, 170, 172, 248, 295, 297, 303, 305, 336, 346, 403, 418, 513, 516, 557, 571, 573, 575, 577, 579, 588, 630, 654, 668, 674, 787, 802, 865, 866, 868, 880, 890, 912, 914, 998, 1012, 1062, 1549, 1561, 1580, 1629, 1662, 1753, 1754
Special pioneer steamship lines.....	1521, 1637
To both steam and sail.....	1315
To offset the operating cost of American ships.....	1665, 1668
Effect on grain-carrying trade.....	903
Elder-Dempster Steamship Line.....	160, 421
Empress Steamship Line.....	180, 457, 520
Export bounty.....	172, 189, 515, 1019
Fast mail steamships for naval auxiliary.....	136, 144, 471, 579, 580, 1685, 1809, 1866, 1867
First American postal subvention.....	1680
Foreign shipping.....	83, 137, 438-443, 727, 807, 1531, 1681, 1687
American recognition in trade competition.....	1733
Total average amount per year.....	1606
Foreign steamship lines in Pacific Ocean trade.....	xvi
Foreign steamship lines to the West Indies.....	132, 141, 160
France.....	24, 83, 141, 658, 659, 1053, 1123, 1126, 1173, 1495
Construction bounties.....	105
Laws and regulations of January 30, 1893, and April 7, 1902.....	270
Free ships.....	386
Freight ships on other than regular mail routes.....	1329, 1332
Germany.....	24, 293, 665, 942, 1127, 1444, 1681, 1687
Great Britain.....	180, 663, 666, 850, 872, 941, 942, 1044, 1304, 1308
Admiralty subventions.....	lx, 145, 952, 1675
Contracts.....	930
Cunard Line. (See Cunard Steamship Line, subsidy.)	
Elder-Dempster Steamship Line.....	160, 421
Empress Steamship Line.....	180, 457, 520
Marine engine construction.....	458, 459
Naval subventions.....	453
Policy of.....	xv, 872, 1679
Postal subventions.....	144, 453
Impermanence of legislation concerning.....	1557
Indirect, to freight ships.....	1487
International conference on.....	904
Italy.....	141, 665
Japan.....	lxxviii, 666, 667, 1048, 1129
Steamship line, Seattle to Japan.....	520
Lake shipping.....	734
Limited period.....	895
Mileage bounty.....	306, 571, 672
Military premiums on ships fulfilling naval requirements.....	1756
Minority views, Merchant Marine Commission.....	lvi
Naval auxiliary.....	136, 144, 467, 470, 575, 1125, 1328, 1685, 1756, 1809

	Page.
Subsidy—Continued.	
Naval Reserve	1134, 1138, 1190
Operating bounty	19
Organized labor, position concerning	835
Peninsular and Oriental Navigation Company	1868, 1880
Policy of foreign nations	xiv, 1545
Previous bills compared	LVII, LVIII
Protection of American labor	1621
Rates of compensation	1869, 1873, 1874, 1877
Report of Lynch committee in 1870	452
Ships, South American trade	719, 808, 810, 893, 1141, 1589, 1602, 1860, 1861
Speed bounty	107, 123, 426, 515, 579, 580, 672, 1670
Steamship lines to Brazil	438-443
America	443, 1861
Austria	441
Foreign	438
France	442
Germany	441
Great Britain	439
Italy	441
Sweden and Norway	947
Tonnage bounty	xxi, xxiii, 303, 307, 316, 322, 325, 346, 350, 400, 420, 573, 580, 704, 1043, 1090, 1097, 1189, 1283, 1316, 1479, 1722, 1873, 1874, 1877
Tonnage bounty, rates of compensation	xx, xxii, XLVII
Uncertainty of legislation concerning	1557
Wage bounty to American seamen	1098
With discriminating duty	1568
Withdrawal	1199
Would centralize trade	1492
Subsidy and subvention, distinction between	LX
Suez Canal, tonnage of	737
Sugar :	
Cuban exports	775
Foreign bounties	716
Preferential on	775
Sullivan, J. J. :	
Statement of	870
Coastwise laws, beneficial to lake shipping	870
Great Britain, subsidy policy of	872
Lake shipping, bonding value	870
Postal subvention	871
Railway subsidy	871
South America, trade facilities	872
Swann, Samuel A. :	
Statement of	1613
Fernandina, Fla., exports of	1613
Foreign trade of Southern States principally export	1613
Sweden, deep sea trade	LXXIX
Sweden and Norway :	
Subsidies	947
Treaty of commerce and navigation, 1816-1818—	
Abstract of articles	253
Swedish steamers in lake trade :	
Charter price	821, 826
Construction, cost	822
Crews	823
Food rations	823
Ports of	824
Wages	821, 822
Swift, O. J. H. :	
Statement of	1095
Sailors' savings	1096
Shanghaiing	1095
Shipping commissioner, arbitration of disputes	1096

T.

	Page.
Tacoma, Wash.:	
Hearings at	1046-1109
Foreign commerce of	1051, 1064
Shipping facilities	1052
Wheat export	1050, 1052
Taxation, American shipping	1185, 1279, 1292, 1462, 1584, 1593, 1641, 1879
Tax exemption	1557, 1559, 1752
Taylor, George:	
Statements of	1172, 1179
American ships in Pacific Ocean trade, coastwise built.....	1174, 1179
Crews, nationality of	1175
Discriminating duties, foreign retaliation	1177
Food on shipboard, American and foreign compared.....	1176
French subsidy policy	1173
Naval reserve	1173
Postal subvention, established steamship lines.....	1174, 1177
Taylor, Fred. W.:	
Statement of	335
American ships as naval auxiliary.....	342
Canada, grain exports.....	337
Coastwise trade of the United States, protection to.....	343
Crews—	
Wages in different ports	339
Cunard Line, postal subvention.....	340
Free ships—	
Foreign trade alone.....	340, 342, 344
Purchase of, for American register.....	335, 338
Grain exports, American and foreign.....	337
Officers—	
Nationality of	338, 340
Naturalization of	340
Postal subvention	340
Seamen's Unions	339
Shipbuilding materials, cost of.....	335
Subsidy—	
Constitutionality of	336
Direct	336
Retaliatory measures against.....	337
Tramp steamers, cargo carriers.....	343
Terminals:	
Absence of facilities in handling freight.....	854
Railway and ship	1534
Testimony of—	
Abbott, Gordon.....	530
Adams, Hon. Robert, jr.....	437
Adoue, Bertrand	1483, 1488, 1501
Aiken, Frank D	1623
Aldrich, H. L	294
Armstrong, David	872
Atkins, Edwin F	565
Atkinson, Horace	364
Avery, J. C	1573
Baker, Bernard N.....	466, 1866
Baker, Fred A	763
Ball, Joseph A	387
Ballinger, R. A	934
Bandlow, Robert	835
Barbour, George H	790
Barr, John C	1097
Barrett, Hon. John	677
Bartol, George E.....	308
Barton, W. B	1715
Bates, Lindon W., jr.....	269
Bates, Capt. William W	249, 685
Beckwith, J. R	1555

Testimony of—Continued.	Page.
Bickford, Hon. R. G.	1670
Bigelow, Frank G.	891
Bingham, F. F.	1581, 1602
Bird, William B.	583
Blethen, Alden J.	997
Bleyer, Julius.	885, 903
Boutwell, W. R.	1660
Bowles, Admiral Francis T.	92
Brantley, Hon. William Gordon.	1803
Brewer, Edward M.	645
Brown, Alexander E.	851
Brown, W. L.	675, 705
Buckman, C. C.	508
Burley, Thomas Sidney.	1091
Burns, George.	771
Burns, W. J.	1109
Buryeson, S. H.	209
Buxton, Hon. Samuel R.	1627
Calkin, Hon. Hervey C.	191
Candage, Capt. R. G. F.	575
Carleson, Capt. N. P.	1474
Case, F. E.	842
Chamberlain, Hon. Eugene Tyler, Com. of Navigation.	1757
Chesebrough, A.	1312
Chester, W. R.	673
Chilcott, Richard.	1013
Christie, John H.	1591
Clarke, Col. Albert, Secretary Home Market Club.	530
Clyde, Thomas.	5
Cohen, B. I.	1168
Cook, Joel.	299
Corliss, Hon. J. B.	787
Coulby, Harry.	877
Craig, John.	99, 814
Cramp, Charles H.	352, 452
Cramp, Edwin S.	422, 1842
Crawford, H. D.	1077
Crowell, John Franklin.	196
Crowley, Capt. John G.	668
Cushman, Hon. Francis W.	1089
Davies, D. Thomas.	988
Davis, Lincoln.	1084
Dearborn, George S.	296
Denison, J. B.	1499
Devol, Maj. C. A., U. S. Army.	1422
Dickie, George W.	1412
Dollar, Capt. Robert.	1285
Donovan, John J.	1058
Downey, Wallace.	182
Downs, James.	158
Eaton, C. S.	1098
Edmunds, Henry R.	346
Ellis, C. H.	1536
Emery, Daniel S.	526
Entwisle, Capt. J. C.	587
Evans, Isaac.	1104
Farquhar, Hon. John M.	224
Ferguson, R. H.	704
Firth, Frank J.	314
Fitzgerald, J. J.	720
Fitzsimmons, Thomas G.	74
Flynn, James E.	1563, 1569
Foard, Joseph R.	500
Foley, Felix.	504
Ford, J. C.	1041
Foster, Hon. Addison G.	1047

Testimony of—Continued.

	Page.
Frazier, William H.....	588
Freeman, R. R.....	561
Furusest, Andrew.....	1212, 1300, 1480
Garlick, Capt. Thomas W.....	1086
German, France J.....	1708
Goldbaum, Joseph.....	927
Golden, John.....	1657
Goldsborough, Richard H.....	1823
Goodyear, C. P.....	1604
Gorman, James C.....	480
Goulder, Harvey D.....	796, 859
Grant, Capt. E. B.....	947
Grasselli, C. A.....	806
Gray, George D.....	1277
Gray, L. H.....	996
Greenleaf, E. M.....	987
Gresham, Hon. Walter.....	1484
Griffith, James.....	986
Gustafsson, G.....	983
Hall, George.....	219
Hanbury, Harry A.....	285
Harlowe, David.....	892
Harrington, Rear-Admiral P. F., U. S. Navy.....	1655, 1749
Hartman, John P.....	953
Haserot, Samuel F.....	863
Haupt, Prof. Lewis M.....	386
Hawley, J. H.....	1500
Hawthorne, George.....	1567
Herrick, Hon. Myron T.....	802
Hewitt, Henry.....	1106
Heynemann, Lionel.....	1472
Hibbs, Frank W.....	959
Hilken, Henry G.....	510
Hill, James J.....	164
Holt, Hon. S. W.....	1630
Holton, John S. W.....	312
Houghton, Frank A.....	61
Howe, F. O.....	1586
Howe, Thomas F.....	920
Howes, Osborne.....	651
Hudson, Joseph F.....	732
Humphrey, Capt. William F.....	577
Hunt, W. H.....	862
James, Hon. Darwin R.....	3
Jayne, H. B.....	1042
Johnson, Alba B.....	306
Johnson, J. Augustus.....	278
Johnson, George H. D.....	903
Johnson, Hon. Tom L.....	792
Jortall, Nicholas.....	1206
Justice, Theodore.....	421
Kane, Dominic.....	979
Kay, W. E.....	1615, 1626
Killingsworth, W. M.....	1178
Kohn, Joseph.....	1547
Knight, William R.....	444
Kremer, C. E.....	699
Laidlaw, J. Ernest.....	1112
LaLanne, Frank D.....	436
Laverge, Capt. Louis.....	69
Lee, Joseph D.....	1145
Lett, R. M.....	1718
Lewis, Capt. Joseph M.....	627
Linck, J. W.....	1108
Lindhe, John B.....	1548
Linnamann, J.....	207

Testimony of—Continued.	Page.
Livernash, Hon. Edward J	1451
Livingstone, Hon. William	736
Lord, Hon. Henry	585
Lorentzen, A. P	1456
Loring, Augustus P	631
Love, Alfred H	460
Luce, Rear-Admiral S. B., U. S. Navy	1735
McAlpine, Gilbert B	1649
McCarrick, J. W	1631
McDonnell, Samuel B	400
McFarland, Robert	1039
McGann, L. E	675
McGregor, J. M	778
McNairy, Amos B	791
McRath, T. S	1153
Magdeburg, F. H	928
Mahan, Capt. Alfred Thayer, U. S. Navy	1745
Manson, Capt. J. L	671
Martin, Hon. Thomas S	1509
Masten, I. J	831
May, De Courcy	324
Maybury, Hon. William C	729
Mears, W. A	1120
Meek, Sam W	866
Meikle, James B	999
Melvin, Capt. William W	1719
Merryman, Capt. H. M	911
Myers, E. T. D., jr	1703
Moller, Capt. Jens	1494
Morley, Horatio T	774
Morris, Calvary	865
Morris, Hon. Thomas J	464
Morton, Hon. Paul, Secretary of the Navy	1733
Mosle, H	1489
Moss, A. A	1721
Murphy, David	220
Newhall, George A	1181
Nixon, Lewis	73
O'Brien, James A	447
O'Brien, Capt. J. Ed	1595
Oldham, Joseph R	1465
Orcutt, Calvin B	36
Osborne, James O	221
Pack, Charles L	804
Parker, Capt. Henry E	1634, 1670
Parker, Capt. J. J	1295
Parker, Hon. Richard Wayne	1725
Parker, William L	190
Parrish, J. Scott	1702
Parsons, Otto	44
Passano, A. C	754
Passmore, Lincoln K	418
Patton, James A	713
Peabody, Francis H	525
Peabody, Henry W	570
Pendleton, Fields S	149, 286, 674
Pennell, H. E	1282
Petterson, H. L	1079
Platt, Charles	435
Plummer, Edward C	238, 634
Porch, James W	1522
Porter, Andrew D	712, 1453
Post, Walter A	1643, 1654
Powell, A. L	1627, 1630, 1714, 1724
Pratt, Louis W	1063
Prentiss, F. F	844

Testimony of—Continued.

	Page.
Preston, Edgar F.....	1202
Quinn, P. F.....	191
Randall, Blanchard.....	474
Randle, Capt. William G.....	325, 394
Read, Walter.....	902
Redmond, Capt. Joseph.....	1555
Reid, David C.....	418
Richards, Alonzo.....	372, 467
Richardson, Thomas.....	1112
Roach, John B.....	417
Roberts, John M.....	1597
Robertson, William.....	376
Robinson, C. W.....	1706
Robinson, Capt. Leighton C.....	1311
Roby, A. L.....	1561
Rolph, James, jr.....	1182
Rose, Hon. David S.....	882
Rose, Hon. John C.....	509
Rosenberg, Edward.....	968
Rosene, John.....	975
Ross, Capt. Alexander.....	1625
Ross, Capt. J. C.....	629
Ross, J. N.....	1106
Ross, W. P.....	1542
Rotch, William.....	576
Ruggles, F. E.....	1900
Ryan, J. M.....	191
Samuels, William S.....	461
Sans, Antonio.....	388
Sayle, Walter D.....	847
Seabury, George J.....	288
Sewall, William D.....	103
Schmidt, Harry.....	496
Schwerin, R. P.....	1317
Shallenberger, Hon. W. S., Second Assistant Postmaster-General.....	1807
Shankland, Archibald.....	1651
Sherrard, James.....	1517
Sickel, W. G.....	723
Smith, Alfred G.....	116
Smith, R. A. C.....	158
Snuggs, A. E.....	923
Spencer, S. C.....	1164
Stanbury, G.....	297
Steeb, J. T.....	1099
Steidle, Eugene.....	1452
Stetson, David S.....	344
Stevenson, E. K.....	399
Stewart, C. Morton, jr.....	485
Stillman, J. E.....	1579
Stillwell, William B.....	1611
Stone, George F.....	683
Storrow, James J.....	525
Stratton, E. Platt.....	192
Sullivan, J. J.....	870
Swan, Samuel A.....	1613
Swift, O. J. H.....	1095
Taylor, Fred W.....	335
Taylor, George.....	1172
Thayer, Capt. I. E.....	1438
Thompson, J. J.....	1703
Thorndyke, G. F.....	1024
Thurber, F. B.....	247
Tibbetts, Capt. W. G.....	1291
Tietgens, Paul.....	685
Todd, Frank M.....	1301
Todd, P. D.....	380

Testimony of—Continued.	Page.
Tomlinson, G. H.	818
Tucker, Alfred	1136
Tucker, Edwin W.	1470
Tucker, William R.	394
Tupper, Capt. M. W.	1609
Tyson, W. S.	1614
Uhrig, E. A.	899
Upshur, W. S.	1711
Upton, A. S.	808
Usher, Commander Nathaniel R., U. S. N.	1755
Vance, Capt. David.	894
Vanderbilt, Aaron.	293
Van Druver, Chas.	837
Vilter, William O.	906
Wallace, James C.	810
Warren, A. F.	1574
Waterhouse, Frank.	935
Wheelock, E. T.	915
Whitehouse, J. S.	1050
Whitney, Henry M.	511
Wight, Pearl.	1518
Wiley, C. W.	1101
Wilson, J. L.	1315
Wiltbank, Capt. Robert.	462
Winsmore, Thomas.	349
Winsor, Alfred.	512
Winsor, William D.	304
Wisner, George Y.	758
Withycombe, Thomas.	1151
Wolvin, Capt. A. B.	820
Wood, E. R.	327
Wood, F. W.	475
Woodside, William.	1477
Woodward, Capt. Thomas J.	1508, 1510
Wright, Edgar W.	1154
Younger, John A.	1552
Thayer, Capt. I. E.:	
Statement of.	1438
American shipping, historical review.	1439
Foreign wrecked ships for American register.	1446, 1450
Free ships—	
Foreign trade alone.	1447
German policy of.	1442, 1444
French shipping and shipbuilding.	1450
Germany, subsidies to Atlantic "greyhounds".	1444
Ship construction—	
Germany.	1443, 1446
Great Britain and Germany, statistics.	1442
Ship repairs.	1443, 1445
Thomas, U. S. army transport, report of expenditures, etc., statistics.	1424
Thompson, J. J.:	
Statement of.	1703
American ships, load line for.	1704, 1705
Barges—	
Manning.	1705
Towage.	1703, 1704
Coastwise trade, undermanning.	1703
Forecasts, unsanitary.	1705
Seamen, efficiency of.	1703, 1704
Thorndyke, G. F.:	
Statement of.	1024
American registry for foreign-built ships.	1038
American shipping, direct aid.	1037
French vessels in grain trade of Pacific coast.	1035
Globe Navigation Company, vessels of.	1036
Lake shipping, freight rates on lumber.	1031

Thorndyke, G. F.—Continued.	Page
Pacific coast—	
Commerce	1025
Freight rates on lumber for export	1030, 1036
Grain export	1033
Grain fleet	1034
Idle tonnage	1029
Lumber export	1026, 1032
Sailing vessels, foreign trade	1026, 1032
Transport service	1025, 1038
Wages, Pacific and Atlantic compared	1029
Thurber, F. B.:	
Statement of	247
Discriminating duties, direct trade	249
Merchant ships, missionaries of trade	247
Postal subvention	248
Roach Steamship Line to Brazil, cause of failure	248
Subsidy, direct aid	248
Tibbetts, Capt. W. G.:	
Statement of	1291
American shipping—	
Port charges, California	1291
Taxation of	1292
Coastwise trade laws for outlying American territory	1293
Crews, alien tax on	1293
Export bounty	1294
Foreign wrecked vessels repaired for American register	1294
Maritime Association of the Port of New York, report of special committee recommended	1291
Pilotage, compulsory	1292
Postal subvention	1293
Tonnage tax	1294
Transport service, Government	1293
Tietgens, Paul:	
Statement of	685
Government aid to shipping, subsidized regular lines	685
Todd, Frank M.:	
Statement of	1301
American shipping, rehabilitation methods	1302
Collins Line, collapse of	1303
Free ships, unlimited	1305
Great Britain, subsidy for service rendered	1304, 1308
San Francisco—	
Export trade	1301
Harbor depth	1302
Subsidy—	
Commercial effect of	1303, 1304, 1308
Cunard Line	1309
Todd, P. O.:	
Statement of	380
Allan Steamship Line, postal subvention	384
American shipping, decline of	381
American subsidized shipping, effect on commerce of Great Britain	385
Crews, unrestricted, nationality of	383
Discriminating duties, commercial effect of	383
Free ships, foreign trade alone	383
Great Britain, postal subvention	384
Ship construction—	
Cost of material	381
Wages of mechanics	383
Ships, foreign, purchased for American register	383
Tariff revision relating to shipbuilding materials	381
Tomlinson, G. H.:	
Statement of	818
Foreign ships, withdrawal for war purposes, effect on American agricultural interests	820

Tomlinson, G. H.—Continued.	Page.
Freight rates, increased by withdrawal of foreign ships for war purposes	819
Wheat trade of the Northwest	818
Tonnage:	
Bounties	XXI, XXIII, 303, 307, 316, 322, 324, 326, 346, 350, 400, 420, 573, 580, 704, 1043, 1090, 1097, 1189, 1283, 1316, 1479, 1722
Rates of compensation	XX, XXII, XLVII, LVII, LVIII
Taxes	LVI, LXI, 105, 108, 119, 142, 149, 420, 643, 1294, 1535, 1554, 1556, 1596
All ships, sail or steam	1280, 1282
And light dues, how applied	XXXII
Austria	1802
Basis of computing	1801
Denmark, exemption	1803
Effect of reciprocity on	1802
Effect on American and foreign shipping compared	245, 643
Foreign countervailing action	1812
Foreign policy of	246
France	1796, 1797
Germany	1793, 1795
Great Britain	1792, 1789, 1790
Hamburg, Germany	1793, 1794
Lake ports, year ending June 30, 1904 (table)	1803
Legislation recommended, concerning	XXXI, L
Netherlands, exemption	1801
Norway	1800
Relation to river and harbor improvements	XXXV
Remission in favor of vessels training boys for naval reserve	XXXIII, XXXVI, L
Spain	1800
Tonnage tax laws:	
First Congress of United States	1676
France, law of January 1, 1898	1797
Great Britain, provision concerning Royal Naval Reserve	XXXIV
Italy, law of 1896	1798, 1799
Towage of barges	61, 620, 1703, 1704, 1720
Trade routes by direct lines	879
Training squadron, United States Navy	1325
Tramp ships:	
Construction cost	36, 38, 41, 43, 1285, 1544
Foreign under American register	403
<i>King David</i> , construction cost (table)	43
Tonnage dependent upon grain crops	514
Tonnage of Great Britain	1467
Type of	42, 343
Transfer of flag during war	467, 1689
Transport service	954, 1062
American ships available	949
Cost of equipping	1437
Government competition with merchant marine	1435, 1437
Government vessels, discontinuance recommended	XXXIV
Great Britain	949
Japan	1313
Operating cost	965, 966, 1073
Transport service, United States Army	525, 1038, 1093, 1293
Abstract of expenditures for voyages during fiscal year ending June 30, 1904, compiled on basis of "Pacific Mail bid" (table)	1431
Abstract of expenditures for voyages during fiscal year 1903, compiled on basis of "Seattle bid" (table)	1432
Charter rates, Spanish-American war	1423
Command of	1075
Crews—	
Nationality of	1438
Wages	1438
Deterioration	1434, 1436
<i>Dix</i> , transport, operation of	967, 1073, 1076
Operation of	938, 965, 966, 967, 1025, 1073, 1076

Transport service, United States Army—Continued.		Page.
Report of expenditures, etc.—		
U. S. army transport <i>Logan</i>		1427
U. S. army transport <i>Thomas</i>		1424
Reserve transports.....		1437
Uninsured.....		1436
Trans-Pacific trade. (See Pacific Ocean trade.)		
Treaties, commercial (abstract of articles):		
Austria-Hungary, Treaty of Commerce and Navigation, 1829-1831.....		255
Belgium, Treaty of Commerce and Navigation and Trade-marks, 1875.....		258
Denmark, Convention Exempting American Vessels from the Sound and Belt Dues, 1857-58.....		256, 257
France, Convention of Navigation and Commerce, 1822-23.....		254
Great Britain, Convention for Direct Trade, 1815.....		252
Italy, Treaty of Commerce and Navigation, 1871.....		257
Japan, Treaty of Commerce and Navigation, 1894-95.....		259
Netherlands, Convention of Commerce and Navigation, additional to Treaty of 1852-53; Articles of Treaty of 1839 included.....		256
Prussia, Treaty of Commerce and Navigation, 1828-29.....		254
Russia, Treaty of Commerce and Navigation, 1832-33.....		255
Sweden and Norway, Treaty of Commerce and Navigation, 1816-1818.....		253
Tucker, Alfred:		
Statement of.....		1136
Discriminating duties—		
Direct trade.....		1142
Foreign retaliation.....		1143, 1144
Free ships—		
Atlantic and Pacific coastwise trade.....		1140
With tonnage dues.....		1137, 1142
Postal subvention.....		1141
Ship construction, limited protection for.....		1140
Subsidy for Naval Reserve.....		1138
Subsidized steamship lines to South America.....		1141
Tucker, Edwin W.:		
Statement of.....		1470
American shipping, repairs.....		1471
<i>St. Louis</i> , repairs in foreign shipyards.....		1471, 1472
School ship for marine engineers.....		1471
Seamen, American, no incentive for.....		1471
Tucker, William R.:		
Statement of.....		394
Resolutions of the committee on rivers and harbors of the Commercial Exchange of Philadelphia.....		394
Tupper, Capt. M. W.:		
Statement of.....		1609
Cuban trade, absence of American ships in.....		1610
Discriminating duties, indirect trade.....		1610
Plimsoll load line.....		1161
Turbine engines:		
Advantages.....		1838
Allan Line S. S. <i>Victorian</i>		1830, 1845
American Turbine Company.....		1833, 1835
British experiments—		
In use of, for channel vessels.....		1845
In use of, for navy.....		1843
Coal consumption.....	1836, 1839, 1844, 1845, 1852, 1854,	1860
Compactness.....		1835
Construction cost compared.....		1863
Cruisers.....	1837, 1841, 1843,	1864
Cunard Line experiments.....		1856
Curtis engine.....	1831, 1834,	1858
De Laval engine.....		1829, 1833
Economy of.....	1843, 1844, 1846-1856, 1860,	1865
For marine propulsion.....	XLIV, 1826, 1837, 1840, 1842,	1869
Goldsborough engine.....		1835
Kinetic.....		1827

	Page.
Turbine engines—Continued.	
Kinetic and reactionary compared	1831
Maneuvering capabilities	1844, 1846
Men required in engine room	1864
Multiple-impact	1828
Parsons's engine	1830, 1831, 1833, 1840
Practicable	1863
Reversing problems	1837, 1841, 1846
South American trade	1862
Space occupied	1835, 1857
Speed	1831, 1837, 1844—1846, 1852, 1853, 1855, 1857, 1858, 1865
"The economy of steam turbines in cruisers" (from Engineering, London, November 18, 1904)	1846
Analysis of coal consumption results	1852
Analysis of water consumption results	1851
Boiler results at full power	1848
Maneuvering capabilities	1846
Results of steam trials of H. M. S. <i>Amethyst</i> with Parsons's steam turbine	1849
Results of steam trials of H. M. S. <i>Topaz</i> with reciprocating engines	1850
Torpedo-boat destroyers	1843, 1846, 1859
Vibration	1836, 1838, 1858
Wage rolls, comparison	1841
Water consumption	1853, 1854
Weight of machinery	1855, 1863
Tyson, W. S.:	
Statement of	1614
American shipping, rehabilitation a commercial question	1614
Postal subvention and differential duties	1614
U.	
Uhrig, E. A.:	
Statement of	899
Coal handling with improved machinery	901
Foreign trade, Lake methods of handling freight	901
Government aid for American shipping	900
<i>Wolverin</i> , freight ship, time consumed in unloading	900
Undermanning of ships	58, 210, 217, 369, 373, 377, 396, 507, 611, 1709, 1717
Coastwise trade	1703, 1704
Marine insurance	644
Sailing vessels	669
United Fruit Company:	
Chartered ships of	508
Crews, nationality	509
Officers, pay	1538
Ships—	
American and foreign	1536, 1539
Number employed	508
Under foreign flags, operating cost	1536, 1539, 1541
Transportation of Panama Canal supplies	1539
United States and Brazil Steamship Line, bankrupted by competition with foreign subsidized lines	248, 1642
United States Standard Register of Shipping, tonnage classed with	1466
Upshur, W. S.:	
Statement of	1711
American shipping—	
Naval auxiliary	1713
Unnecessary for foreign trade	1713
Freight rates on grain, railroad discrimination	1714
Grain export—	
Chesapeake and Ohio Railroad Company	1711
European grain supply short	1712
Freight rates, effect of foreign competition	1712
Of the United States	1712
South America, establishment of regular steamship lines to	1713

Upson, A. S.:	Page.
Statement of-----	808
Argentina—	
Docks at Buenos Ayres-----	809
Establishment of a regular mail line to-----	809, 810
Postal subvention, for steamship line to Argentina-----	810
Ship facilities for American trade-----	809
South American trade, "triangular route"-----	808
Usher, Commander Nathaniel R., U. S. N.:	
Statement of-----	1755
American shipping, rehabilitation of-----	1755
Naval auxiliary—	
Must come from merchant marine-----	1756
Necessity for-----	1756
Naval reserve bill (S. 2991)-----	1756
Navy of the United States, quota of seamen-----	1756
Postal subvention, insufficient for naval auxiliary purposes-----	1756
Subsidy, military premiums on ships fulfilling naval requirements--	1756

V.

Vance, Capt. David:	
Statement of-----	894
British ships under Norwegian register-----	895
Discriminating duties-----	898
Foreign trade, improvement of freight handling facilities-----	897
Free ships, operating cost of-----	895
Freight ships, lower rates with larger vessels-----	896
River and harbor improvements on Great Lakes-----	897
Ships, operating cost compared-----	895
Subsidy—	
Definition of-----	898
Limited period-----	895
Vanderbilt, Aaron:	
Statement of-----	293
American shipping, decline of-----	293
Japan, merchant ships as naval auxiliaries-----	294
World's ocean commerce, proportion carried in American ships-----	293
Van Druver, Charles:	
Statement of-----	837
American shipping, protection for-----	837
American shipyards, unemployed labor-----	838
Free ships-----	838
Protection for American labor in shipyards-----	839
Ship construction, interest of labor in-----	841
Victorian, Allan Line turbine ship-----	1830, 1845
Vilter, William O.:	
Statement of-----	906
Export trade—	
Breakage in freight transportation-----	907
Establishment of steamship lines-----	908
Machinery, transportation of-----	906
Virginia Mariners' Friends Society-----	1658
Volunteer navy in civil war-----	1738

W.

Wage bounty for American seamen-----	1098
Wages:	
Blacksmiths, compared-----	190
Blacksmith's helper, compared-----	191
Boiler makers-----	1456
Coppersmiths-----	191
Officers of ships-----	67, 301, 527, 561, 670, 784, 1094, 1338, 1491, 1562, 1587
Pilots-----	784
Seamen-----	113, 326, 339, 395, 462, 561, 890, 1099, 1490, 1493, 1498, 1550, 1570
Advance-----	208, 219, 224, 279, 345, 348,
	372, 379, 403, 448, 450, 496, 505, 509, 608, 648, 1566, 1658, 1710, 1717

Wages—Continued.		Page.
Seamen—Continued.		
American and British compared	64, 66, 215,	1093
American and German compared		555, 558
American and foreign compared	XI, XII, 19, 21, 22, 51, 55, 57, 69, 71, 121, 154, 157, 364, 368, 377, 482, 517, 940, 951, 1196, 1286, 1347, 1538, 1564, 1583, 1661, 1666, 1708	
Asiatic		473, 939, 1087
Atlantic and Pacific compared		1029
Barges		50
Boston Steamship Company		523
Chinese		618, 939, 1087
Coastwise trade	151, 156, 157, 365, 396, 527, 1288, 1291,	1566
Controlled by unions		563
Coastwise Transportation Company		669
Compensation for delay in paying		599
Controlled by supply and demand		484
Deserters		1100
Different ports	57, 68, 71, 152, 364, 368, 564, 1335, 1346,	1584
Engineers		295, 1553
Firemen		379, 483
Gulf Transit Company		1598, 1600
Lake shipping		156, 643, 711, 745
Norwegian	57, 154, 156, 157, 208	
Pacific Ocean trade		301, 1057, 1086
Regulated by union		1597
Scale under different flags		19, 21
Schooners		1592
Sea and ashore compared		1318
Shore occupation, partial list (table)		1274
Statistical tables		161, 163, 164, 301, 482, 504, 517, 518, 746, 1273, 1274, 1360–1387,
Steamship <i>David</i> —		1413
Under American flag		419
Under Norwegian flag		419
Stewards—		
Coastwise trade		1452
Foreign trade		1452
Swedish steamers in Lake trade		821, 822
Subsidy		1722
Transport service, United States Army		1438
Union schedule		153
Ship construction	VII, x, 75, 92, 101, 325, 363, 383, 423, 980, 1350, 1355, 1413, 1419, 1456, 1644, 1650,	1652
Average, different trades		1654
<i>Maine</i> , steamship		479
Ship joiner		190
Wallace, James C.:		
Statement of		810
American shipping, Government aid		812
<i>Minnetonka</i> and <i>Minnewaska</i> steamships, operating conditions		811
Philippine coastwise trade law		811
Steel plate, cost of		811, 812
Ward Steamship Line (see also New York and Cuba Mail Steamship Line):		
Auxiliaries in Spanish war		121
Cadets		120, 128
Construction cost		131
Dividends of		125
Financial status		124
Fleet of, May 1, 1904		133, 134
Freight competition		127
Mail contracts		134, 135
Officers		120
Postal subvention		121, 134
Repairs		130

Ward Steamship Line—Continued.	Page.
Ships for army transports	128
Ships, where built	129
Statistical tables	133
Warren, A. F.:	
Statement of	1574
American shipping, decline of	1574
Fishing smacks, type of vessel	1576
Free ships, operating cost	1577
Pensacola—	
Fishing fleet	1575, 1577
Port of, foreign-going vessels	1578
Washington, D. C., hearings at	1725-1882
Waterhouse, Frank:	
Statements of	935, 967
Chinese crews, wages	939
Freight rates, Puget Sound to Philippine Islands	967
Great Britain, Cunard Line subsidy	938
Naval auxiliary, subvention for	938, 950, 952
Postal subvention	943, 951
Russia, volunteer fleet	946
Ship construction—	
Cost of	936
Stagnation in	936
Steamship statistics	940
Trans-Pacific trade—	
Chinese crews	939
Competition	938
Fixed charges	939
Transport service—	
Government vessels, cost of operating	948, 967
Great Britain	949
Ships available for	949
Subsidy—	
Canada, Canadian Pacific Steamship Line	938
Direct aid	937, 951
France	943
Germany	942
Great Britain	941
Italy	947
Japan	938, 944
Norway and Sweden	947
Russia	946
Wages, American and British compared	940, 951
Water supply for seamen	506, 972, 974, 1081
Weser River, Germany, tonnage and light dues	1795
West Indies trade:	
American Mail Steamship Company	158
Competition in	160
Foreign shipping in	132, 141, 160
Whaling vessels, treatment of seamen	610
Wheat, freight rates on	204
Wheat export:	
Pacific coast trade	1118
Tacoma, Wash.	1050, 1052
Wheat trade of the Northwest	818
Wheelock, E. T.:	
Statement of	915
Commercial treaties—	
Abrogation of	913
Violation of, by foreign governments	919
Discriminating duties, indirect trade	916, 918
Protective tariff policy applied to American shipping	916
Subsidy	917

	Page.
Whitehouse, J. S.:	
Statement of	1050
Boston Steamship Company, Government supply contract with	1054
Pacific Ocean trade—	
Foreign ships	1055
Wages	1057
Puget Sound—	
Grain export	1050
Lumber export	1051, 1053
Subsidy—	
Construction bounty	1056
France	1053
Tacoma, Wash.—	
Commerce of	1051
Shipping facilities	1052
Wheat export	1050, 1052
Trans-Pacific steamship lines, contracts with railways	1054
Whitney, Henry M., address of	511
Wight, Pearl:	
Statement of	1518
Brazil trade route	1519
Cargo ships needed	1519
Discriminating duties, indirect trade, effect on foreign trade	1521, 1522
Larger markets for agricultural interests	1519
Mexican-American Steamship Line—	
Norwegian ships	1520
Operating cost	1520
Railway cooperation	1520
Subsidy, direct aid for special pioneer lines	1521
Wiley, C. W.:	
Statement of	1101
Crews—	
American and Asiatic, efficiency compared	1103
Chinese	1102
Ship repairs	1101
Willapa River, Washington, lumber-trade statistics	1085
Wilson, J. L.:	
Statement of	1315
California Harbor Association of Masters and Pilots—	
Recommendations of	1315
Marine hospital	1316
Naval Reserve	1316
Officers, licensed	1316
Seamen—	
Pension fund for American	1316
Suspension of licenses	1316
Subsidy, tonnage bounty	1316
Supervising inspectors	1316
Wiltbank, Capt. Robert:	
Statement of	462
Seamen—	
Contracts, disregard of	462
United States naval vessels	462
Treatment of	462
Wages	462
Winsmore, Thomas:	
Statement of	349
Coastwise trade—	
Licensed officers	349
Negro seamen in	350
Pilotage	349
Revision of navigation laws regarding	349
Government aid to shipping, tonnage bounty	350, 351
Irrigation of western lands	351
Officers, nationality of	350

Winsmore, Thomas—Continued.	Page.
Seamen—	
Shipping of	350
Union interference with	350
Shipping commissioner, extension of powers	350
Subsidy, commercial effect of	351
Winsor, Alfred:	
Statement of	512
Atlantic liners—	
Character and speed	515
Class of freight carried	515
Bill to provide ships and seamen to aid in the common defense, to promote commerce, and to encourage deep-sea fisheries	518
Boston Steamship Company—	
Competition with foreign subsidized lines	520
Crews—	
Nationality of	523
Wages of	523
Number of vessels in Pacific trade	523
Operating route	512
Pacific-trade route	523
Crews, American	522
Freight rates, comparison between tramps and regular line steam- ships	514
Oriental trade controlled by regular line steamships	514
Postal subvention—	
For fast mail steamships	513
For American steamships in oriental trade	521
Repairs, cost of	521
Seamen, wages, American and foreign compared	517, 518
Ship construction, comparative cost of	515
Shipowners, fixed contracts with	516
Ships, value of standardizing	522
Subsidy—	
Construction bounty	522
Empress Line	520
Export bounty for tramp steamships	515
Japanese Line, Seattle to Japan	520
Speed bounties for fast-mail ships	515
Tramp ship tonnage dependent on grain crops	514
Transport service—	
Government	525
Japan	525
Winsor, William D.:	
Statement of	304
Discriminating duties, commercial effect	305
Free ships	305
Postal subvention	304
Subsidy—	
Construction bounty	304
Direct	305
Mileage	306
Wisner, George Y.:	
Statement of	758
Canadian ship canal, route of	759
Ship canal improvements	759, 760
Waterways from the Great Lakes to Atlantic Ocean—	
Depth of channels	761, 762
Projected routes	760
Withycombe, Thomas:	
Statement of	1151
American shipping, Government aid for	1152
Wolvin, Capt. A. B.:	
Statement of	820
Canada, coastwise trade laws	824
Cargo ships on the Great Lakes, size of	825
Coastwise trade, reciprocity with Canada	829

Wolvin, Capt. A. B.—Continued.	Page.
Lake trade, foreign ships in.....	820
St. Lawrence traffic route.....	826
Ship canals, Great Lakes to Atlantic Ocean.....	827, 828
Swedish vessels in the Lake trade—	
Charter price of.....	821, 826
Construction cost.....	822
Crews.....	823
Food on shipboard, cost of.....	823
Wages.....	821, 822
Wolvin, freight ship:	
Carrying capacity.....	738, 789
Dimensions.....	707, 738, 900
Time consumed in unloading.....	789, 900
Wood, E. R.:	
Statement of.....	327
American mail service, postal subvention.....	331, 334
Brazil—	
Exports to the United States.....	333
Imports of coal from the United States.....	333
Coal—	
For the American Navy, purchase of.....	329
Cost per ton, f. o. b. in America.....	328, 332
Cost per ton, f. o. b. in Great Britain.....	328, 332
Export of Great Britain.....	328
Ocean freight rate on.....	328
Commercial treaties.....	335
Discriminating duties, direct trade.....	333
Foreign commerce of the United States, cost of transportation.....	330
Foreign commerce of the world.....	327
France—	
Coal, imports of.....	329, 332
Merchandise imported to the United States.....	333
Initial cargoes, low cost.....	328, 332, 334
Rebate on American coal.....	329
Seamen, American, "labor allowances".....	332
World's ocean commerce—	
Coal tonnage.....	328
Cost of transportation.....	330
Grain tonnage.....	330
Total annual tonnage (table).....	331
Wood, F. W.:	
Statement of.....	475
Government aid to shipping, construction bounty.....	476
Maine, steamship—	
Construction wages.....	479
Cost of construction.....	478
Number of men employed in construction of.....	478
Ship construction, cost of.....	477
Woodside, William:	
Statement of.....	1477
Sailing vessels, apprentices.....	1480
Ship construction, comparative cost.....	1478
Subsidy—	
Canada-Mexico agreement.....	1479
Direct aid.....	1477
Tonnage bounty.....	1479
Wages of crews, compared.....	1478
Woodward, Capt. Thomas J.:	
Statements of.....	1508, 1510
American shipping, rehabilitation.....	1510
American Shipping League, organization of.....	1510
Free ships—	
Effect on American shipyards.....	1514
Inferior to American-built vessels.....	1518
Mississippi River improvements.....	1511
New Orleans, shipping in foreign trade.....	1515

Woodward, Capt. Thomas J.—Continued.	Page.
Seamen—	
Accommodations on shipboard.....	1516
Treatment of.....	1515, 1517
World's ocean commerce:	
Coal tonnage.....	338
Cost of transportation.....	330
Grain tonnage.....	330
Percentage carried in American ships.....	293, 806
Tonnage increase, per annum.....	196, 200
Total annual tonnage.....	331, 1543
United States not a carrying power.....	806, 905
Wright, Edgar W.:	
Statement of.....	1154
Free ships—	
Cost of operating.....	1157
Repairs.....	1161
Freight rates, war effect on.....	1159
Germany, merchant-marine development.....	1154
Japan, subsidized steamship lines.....	1155
Officers, American, of sailing vessels, efficiency of.....	1157
Pacific coast trade competition.....	1155
Postal subvention, to established steamship lines.....	1162
Seamen, foreign-born, for United States Navy.....	1160
South America, freight transportation to.....	1159
South American trade, foreign steamship lines.....	1158

Y.

Younger, John A.:	
Statement of.....	1552
Marine engineers—	
American, efficiency of.....	1553, 1554
American and foreign wages.....	1553
Marine Engineers' Beneficial Association.....	1553
Ships, American and foreign, cost of operating.....	1552
Tonnage tax.....	1554

O.

